DOCUMENT RESUME

ED 080 758 VT 021 167

TITLE	Library Technical Assistant: A Suggested Two-Year Post-High School Curriculum.
INSTITUTION	Illinois State Board of Vocational Education and Rehabilitation, Springfield. Vocational and Technical Education Div.; Toledo Univ., Ohio.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
PUB DATE	73
CONTRACT	OEC-0-70-4955
GRANT	OEG-0-72-4684
NOTE	150p.
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (No price quoted)
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	Community Colleges; *Curriculum Design; *Educational Programs; Instructional Programs; Job Training; *Library Technicians; *Post Secondary Education; Subprofessionals; *Technical Education; Vocational Development; Vocational Education
IDENTIFIERS	*Illinois

ABSTRACT

This 2-year programmatic plan for the training and development of library assistants was prompted by the recent abundance of research information and the shortage of resource personnel to assist in the processing and handling of the resulting output. The guide provides a suggested curriculum plan, course outlines accompanied by texts and reference materials, laboratory layouts, including equipment recommendations and costs, announcements of faculty and student services, resource materials, and a selected list of professional and technical societies concerned with the relevant technology. Although the indicated level of instruction is post high school, the sequence of course work may start at any grade level where there is sufficient background and comprehension. (SN)

ED 080758

A Suggested Two-Year Post-High School Curriculum

library technical assistant

FILMED FROM BEST AVAILABLE CO

DISCRIMINATION PROHIBITED — Title VI of the Civil Rights Act of 1964 states: "No person in the United States, shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Therefore, the Vocational Education program, like all other programs or activities receiving financial assistance from the Department of Health, Education and Welfare, must be operated in compliance with this law.

The project presented or reported herein was performed pursuant to a contract from the U.S. Office of Education, Department of Health, Education and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education, and no official endorsement by the U.S. Office of Education should be inferred.

ED 080758

A Suggested Two-Year Post-High School Curriculum

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

library technical assistant

Developed pursuant to contract No. OEC-0-70-4955
with the U.S. Office of Education
by the University of Toledo
Toledo, Ohio
and
Printed and disseminated pursuant to grant No. OEG-0-72-4684
with the U.S. Office of Education
by the Illinois Curriculum Management Center
Division of Vocational and Technical Education
Board of Vocational Education and Rehabilitation
Springfield, Illinois

For sale by the Superintendent of Documents,
U.S. Government Printing Office,
Washington, D.C. 20402

FOREWORD

The growth of man's knowledge, coupled with population increase and the extended responsibilities of the library in the areas of social service, research and educational support functions, has placed greater burdens on library institutions. These developments have created a shortage of skilled library technical assistants to assist librarians, as part of the library manpower team concept.

This guide provides a suggested curriculum plan; course outlines accompanied by texts and reference materials; laboratory layouts complete with equipment recommendations and costs; faculty and student services; resource materials for enhancing the curriculum; and, a selected list of professional and technical societies concerned with the technology. Although the indicated level of instruction is post high school, the sequence of course work may start at any grade level where students have the prerequisite background and understanding.

However, employment opportunities and the need for library technical assistants in a particular community or geographical area should be determined, through a survey conducted by a carefully selected advisory committee, prior to the initiation of a library technical assistant program.

The guide was developed pursuant to a contract with the U.S. Office of Education by The University of Toledo. Rhua Ernst, Community and Technical College, served as the Project Director, with Margaret Shallcross, Department of Educational Media, as the Assistant Project Director, both with the University of Toledo. William Berndt, Project Officer and Walter Brooking, Technical Education Specialist, directed the project for the U.S. Office of Education.

Many valuable suggestions were received from special consultants, librarians and employers, and from administrators and faculty in community and technical colleges. Although every suggestion could not be incorporated, each was considered carefully in light of the publication's intended use. In view of this, it should not be inferred that the curriculum is completely endorsed by any one institution, agency or person. It is a plan for a program, a plan to be modified by administrators and their advisers to meet local, state and regional needs.

Dr. William S. Carlson, *President*
The University of Toledo

ACKNOWLEDGMENTS

The University of Toledo and the project staff recognizes the valuable contributions made in the detailed reviews of this publication by the individuals listed below.

DeLois Allen, Coordinator, Library Technical Assistant Program, Polk Junior College, Winter Haven, Fla.
D. Joleen Bock, Director of Library Services, College of the Canyons, Santa Clarita Community College District, Valencia, Calif.
Dorothy F. Deininger, Associate Professor, Graduate School of Library Science, Rutgers, The State University, New Brunswick, N.J.
Dale Gaddy, Director of Microforms Project, American Association of Junior Colleges, Washington, D.C.
Louise Giles, Dean of Learning Resources, Macomb County Community College, Warren, Mich.
Emil Greenberg, Coordinator, Library Technical Assistant Program, Burough of Manhattan Community College, New York, N.Y.
Dorothy Johnson, Coordinator, Library Technical Assistant Program, Cuyahoga Community College, Cleveland, O.
Elnora Portteus, Directing Supervisor of School Libraries, Cleveland Public Schools, Cleveland, O.
James Robb, Administrative Deputy, County of Los Angeles Public Library, Los Angeles, Calif.
John Sherrod, Director, United States Department of Agriculture, National Agricultural Library, Beltsville, Md.
James Wallington, Director of Publications, Association of Educational Communications and Technology, Washington, D.C.

CONTENTS

	Page
FOREWARD	iii
ACKNOWLEDGMENTS	iv
THE LIBRARY AND THE TECHNICAL ASSISTANT PROGRAM	1
GENERAL PROGRAM CONSIDERATIONS	4
Special Abilities Required of Technical Assistants	7
Activities Performed by Technical Assistants	7
Advisory Committee and Services	9
Requirements for the Administration of Programs	10
Faculty	11
Student Selection and Services	12
Textbooks, References and Related Media Materials	13
Library Resources	13
Laboratory Equipment and Facilities	15
Professional and Technical Societies	15
THE CURRICULUM	16
Brief Description of Courses	17
Content and Relationships	19
Cooperative Education	22
Suggested Continuing Study	24
COURSE OUTLINES	25
Technical Courses	25
Introduction to Library Resources and Services	25
Introduction to Technological Media	32
Technical Processes I	37
Technological Media Production	40
Readers Services	48
Public Service	50
Technical Processes II	56
Application of Computer and Automation Technology to the Library	60
Supervised Work Experience	64
Career Elective	69
Children's Library Services	69
General Education Courses	74
Communications I	74
Communications II	77
Humanities I	80
Humanities II	83
Culture and Society	86
General Psychology	90
Biological Science	95
Physical Science	100
Auxiliary Technical Course	105
Data Processing Applications	105
FACILITIES, EQUIPMENT AND COSTS	109
General Planning of Facilities	109
Equipment Operation and Repair Laboratory	109
Technical Processes Laboratory and Classroom	113
Graphic Arts Laboratory	115
Photo Reproduction Laboratory	116
Photo Processing Laboratory	118
Sound Recording and Duplicating Laboratory	120
Equipping the Laboratories and Costs	120
Estimates for Specific Laboratory Equipment and Supplies	121
Summary of Costs	122

CONTENTS

Continued

BIBLIOGRAPHY 124
APPENDICES 129
A. Career Ladders from Selected Sources 129
B. Pre-Technical Prerequisite Skill Curriculum 134
C. National Skills Tests 135
D. Journals and Periodicals for the Technical Curriculum 139
E. Societies and Organizations pertinent to the Education of Library Technical Assistants 141

THE LIBRARY AND THE TECHNICAL ASSISTANT PROGRAM

The rapid proliferation of knowledge in a complex technological society, coupled with an ever increasing population, has created many new problems for today's libraries. At the same time, scientific developments affecting information storage and dissemination methods have created great changes in the concept and role of the library.

Within this decade and the next, library service will undergo rapid transformations which will make increased personnel essential to optimum library operation. Compounding the need to meet change is the desire of librarians to make their institutions responsive and competent to serve critical social needs. Librarians look both to technology and to developing and sustaining human values in their staffs to attain these goals. Information has become available in many forms and rapid access to the continuing accumulation of knowledge is a service that must be provided by libraries. The problems inherent in information acquisition, storage, retrieval, and dissemination have been multiplied by the sheer numbers of population and the information explosion of the recent decades. So there is a special need for skilled library technical assistants to support professionals.

The concept of the library as a place where books, manuscripts, musical scores and other literary works are stored is rapidly changing. Films, phonodiscs, tapes and microforms are standard materials in many libraries. Some of the most important changes come from new and sophisticated equipment for information storage and retrieval. Information networks, in the process of development, will be linked together by sophisticated computers capable of rapidly transmitting information. Random and dial access equipment (linked to computers) has been developed that can transmit visual and audio images in a matter of seconds. In the foreseeable future, computer terminals and graphic transmission devices may be standard equipment in many libraries.

Libraries have evolved from repositories of printed materials into learning resource centers offering both printed and audiovisual materials. More and more, librarians will be responsible for the storage and retrieval of all forms of media. Studies over the past ten years indicate a need for library technical assistants to assist librarians in meeting both current and emerging needs.

The following conditions have altered the concept of the library and have contributed to a shortage of well-trained library technical assistants:

1. *The Population Explosion.* Following a long period of relatively slow growth, the United States population grew rapidly in the years following World War II. The birth rate from 1946 until its peak in 1961, coupled with a declining death rate, have led to an increase of more than 40 per cent in the total postwar population of the United States. The demands of this increased population for readily accessible information have put a heavy burden on the library as an agency charged with the dissemination of information services to society.
2. *The Knowledge Explosion.* The body of knowledge to be made available through libraries has increased both in volume and complexity. Publication of new books doubled between 1950 and 1966. The growth of knowledge is reflected not only in the increased production of books, but also in the proliferation of journals, research reports, dissertations and all forms of media materials. The acceleration of research in every field places a greater demand on libraries to provide ready access to the materials essential to conduct and support research.
3. *Increased Mass Education Programs.* The library has a social responsibility to support formal education programs from preschool through graduate and professional schools. Today, increasing numbers of men and women must now master, to some degree, various levels of advanced scientific knowledge and the techniques and skills necessary to apply this knowledge. A concomitant result has been the necessity of extending post high school training to at least half or more of the country's youths. More than five times as many young people now receive post high school technical college training as did before World War II.
4. *Continuing Self-Education and Retraining.* The knowledge that most men employ in their daily work is based on rapidly changing technology, thus requiring frequent, nearly continuous retraining of professional, technical and managerial personnel. Much of this training is accomplished through professional journals and

research reports. This ever-increasing and expanding technology of society, and the knowledge it generates and must transmit to its members, will continue to bring pressure on all libraries.

5. *Emerging Social Responsibilities.* Continued emphasis on high-level training and extensive reliance on complex written materials will continue to exclude the uneducated and semiliterate from full participation in society. Libraries and schools must extend their services to the culturally and educationally deprived by providing a ladder by which lower-class youths can move into the middle class. The service concepts, philosophy, and personnel needed in core area libraries must change in order to facilitate the integration of these groups into society.
6. *National Research Responsibilities.* Since World War II, paced by government programs in the fields of defense and space exploration, society has devoted enormous sums to scientific research and technical development. To sustain this research, new levels of library resources have to be provided in universities, government agencies and major corporations. New and expanding libraries require additional trained personnel to provide support services.
7. *Resources for an Informed Public Opinion.* Social and technological innovations of the last generation, network television, radio and mass publishing have combined to create a mass communication network wherein single communicators utilize all resources to create persuasive and immediate contact with an audience of millions. The number of communicators with access to these powerful communication instruments is limited. Society's prime device for reversing this ratio and linking the individual to a multitude of sources of information and ideas, among which he can choose, is the library. It is extremely important that library services be available and greatly strengthened to offer diversity to those who will seek to shape a more balanced image of reality.
8. *Personal, Cultural and Intellectual Growth.* This generation's coming-of-age will have a considerable impact on the cultural world. The influx of millions of culturally sophisticated young people will greatly expand the audience for experiences in literature, music, art, dance and theater, and will increase the demands on libraries for providing related information and resources.
9. *Federal Aid Programs.* Since the enactment of the Library Service Act of 1956 and the Elementary and Secondary Education Act of 1965, the Federal government has been appropriating funds for library facilities, materials and resources

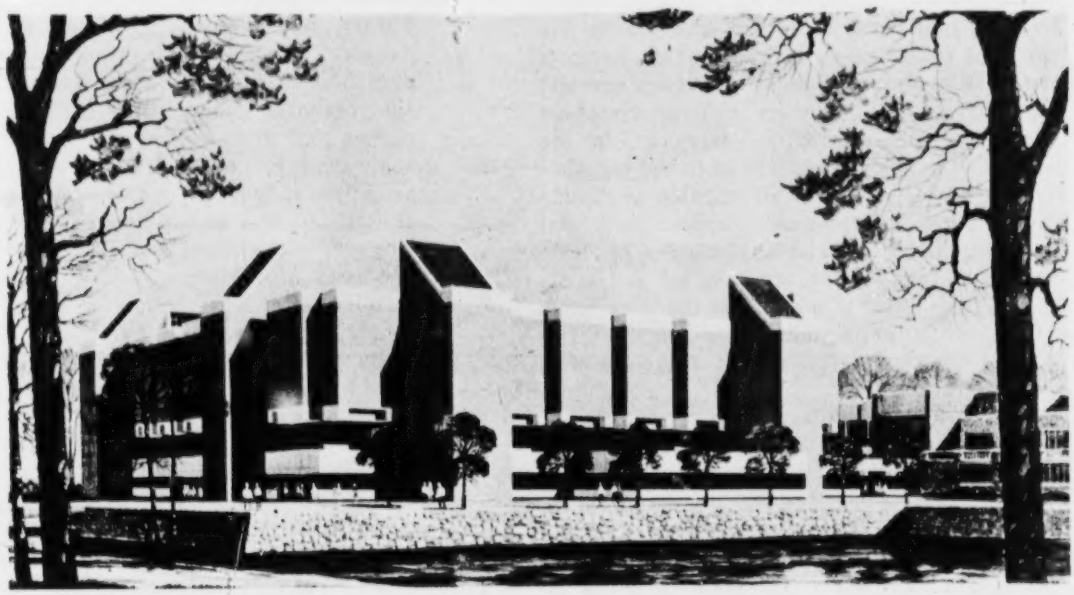


FIGURE 1 — *Architectural changes in the design of modern libraries reflect the restructuring of library functions and services.*

for all types of public and school libraries. This flood of new material has placed a burden on many libraries to organize and disseminate these materials.

10. *Varied Forms of Media Materials.* Many libraries now are taking advantage of machine stored data, microform presentations, and many types of audio and visual media to provide the kinds of service that cannot be provided as efficiently or effectively through the print medium. New developments in the communications field continue to make new demands on libraries for the dissemination of all forms of media.
11. *Communication Networks.* The ability of individual libraries to make available all of the materials demanded by their users is limited. Recognition of this limitation has stimulated work on various kinds of cooperative systems and networks to interconnect libraries of various kinds.

The employment outlook is favorable for library technical assistants in this rapidly growing field. Graduates of two-year post high school academic programs will be in particularly strong demand.

GENERAL PROGRAM CONSIDERATIONS

The objective of the total program recommended here is to produce a competent library technical assistant. The technical assistant needs to know how to work and communicate directly with librarians, clerks, pages and other technical assistants; meet and assist clientele in using the resources and services of the library; satisfactorily perform assigned duties; and, grow into positions of increasing responsibility and service to his institution. The graduate technical assistant should have a liberal educational background, enough to be familiar with the cultural aspects of society and their implications for the institution which he serves. This provides a basis for continuing education as an active, well-informed member of the library manpower team specifically, and of society in general.

A program which, when completed, will produce the type of graduate just described should be carefully designed. Each course must be planned to help the student develop knowledge and skill in a particular area and be integrated into the program. The sequence of courses must logically contribute to the final objective of producing a competent technical assistant. Close correlation of courses comprising the program should be maintained if the program is to enable the student to obtain the understanding required of technical assistants in the many and varied types of today's libraries. The Library Technical Assistant program must be designed to make students aware of and familiar with all phases of library work; to provide background knowledge of all types of libraries and services; and, to develop the kind of individual who will be able to work cooperatively with professionals, other library personnel and the public. To accomplish this, preparation for paraprofessional employment in libraries relies heavily on knowledge of books and other media formats, which indicates a greater than usual reliance on program content often considered academic or nonvocational.

Basic to the total program is a familiarity with the tools and resources of the library. This guide for educating technical assistants recommends that the student begin with a study of the organizational patterns of various libraries; their resources; the various kinds of libraries and services they provide; the unique nature of the clientele served by different types of libraries; and, the technician's role and

FIGURE 2 — *The library technical assistant is part of the library manpower team, assisting in many behind the scenes operations essential to the acquisition and dissemination of knowledge.*

responsibilities as part of the library manpower team.

Concurrent with an introduction to standard library resources and services is an introduction to nonprint media. The technical content of the program is intended to supply a wide background in the diverse functions and services of the library, whether it is called a library, instructional resource center, media center or whatever. In the first year, the student should acquire an understanding of the organization of various types of libraries and the clientele they serve. He needs to develop skill in selected library procedures, tools and techniques; some understanding of the use of bibliographic tools and searching techniques commonly used by various kinds of libraries; the processing, storage and retrieval of diverse forms of special materials such as microforms, and other audio and visual media; and, a basic knowledge of work flow in a technical processing department.

In the first year, the student also will be introduced to the library as a total resource center and will become familiar with various kinds of technological media. He will be provided some experience in the operation and minor maintenance of equipment, basic techniques of utilization of media equipment and materials; acquisition tools and techniques unique to technological media; and, methods of scheduling and distribution of audiovisual equipment and materials.

He will learn the techniques of sound recording and reproduction, production of still projection materials, processes and skills involved in the duplication and copying of print materials, and the basic elements of graphic design. In the first year, the student also will acquire a basic foundation in communications skills, literature, humanities, science and data processing.

In the second year, the student acquires a more comprehensive understanding of the bases and various techniques of organizing library materials and the application of computer technology to information storage, retrieval and dissemination. He is introduced to the essential principles of reference service and the use of general reference tools. He becomes familiar with the many kinds of services that may be found in the public areas of libraries. These include circulation; reserve and interlibrary loan; services to the handicapped and elderly; and, community programs for urban areas, and socially and economically isolated groups. Further emphasis is given to the general education curriculum through a second course in humanities, as well as basic sociology and psychology courses.

In the second year, the student may be given a choice of career electives to permit him to pursue his special interests. These career electives might be any of a variety of courses offered in most two-year institutions or, when available, courses such as children's library services, special libraries and advanced media technology.

In the final semester, the student is given the opportunity to gain practical work experience in two or more libraries of his choice. The student will work 12 hours a week under the supervision of a librarian or media specialist, and meet once a week, in seminar, with the instructor to acquire skills in the principles of effective supervision and management at the technician level.

Graduates of this program can expect to find employment in many types and sizes of libraries requiring a variety of responsibilities. Most graduates will further develop their abilities by continued study on a part-time basis to keep pace with new developments in their fields. The following listing shows a sampling of only a few of the job opportunities for library technical assistants, as described by employers. Some are beginning positions, others are attained through work experience or further study, or both. See Appendix A.

1. *Library Technical Assistant I* — May perform one or more of the following: assist readers in locating books and using the public catalog; supervise shelving and other tasks performed by student assistants and clerks; supervise the maintenance and distribution of special collections and equipment; assist in the cataloging department; and, may be responsible for the reproduction of media materials.
2. *Library Technical Assistant II* — May perform all of the duties of the Library Technical Assistant I, as well as one or more of the following: supervise the work of Library Technical Assistant I; assist in the preparation of bibliographies; develop displays; supervise multiple book stack areas; and, be responsible for the production of media materials.
3. *Library Technical Assistant III* — May perform all duties of the Library Technical Assistant II, as well as one or more of the following: be responsible for supervision of all other library technical assistants and clerical staff; prepare special bibliographies; do basic uncomplicated

cataloging; provide reference services on information desks and answer reference questions of an uncomplicated nature; supervise circulation, interlibrary loan or periodical services; and, assist with special community projects and services.

The classifications and degrees of responsibility may vary somewhat depending on the objectives and size of the particular library, and the clientele it serves. Library technical assistants work in a great variety of libraries. These include public and private school libraries, academic libraries, public libraries and special libraries such as medical, business and governmental.

Besides technical skills, some of the positions in a particular library may demand other traits and related skills. For example, a knowledge of medical terminology or a strong background in science and mathematics may be required for effective employment in a special library. A wider background in general education, literature, humanities and communications may be necessary to be an effective employee in a small public library system or a school library. A course in young adult and children's literature would benefit the student who is interested in working with young people.

In addition to the technical courses, general education courses and related technical courses which comprise the suggested two-year curriculum, it is desirable that the library technical assistant have some basic clerical skills. For example, typing skills, while not a prerequisite for entry into a program, should be acquired by the student either through additional course work or self-study before he enters his internship and graduates from the program. Although typing is a clerical skill, the student may find himself in a position where he has limited clerical assistance or none at all. It is not uncommon for small libraries to have only one to three full-time staff members. This necessitates the acquisition of skills at all operative levels below the technician level, including clerical skills. A minimum typing speed of 35 words per minute is recommended.

Skilled technical assistants must have both technical competence and the ability to react positively to a variety of situations encountered in their working associations with librarians, other technical assistants, clerical employees

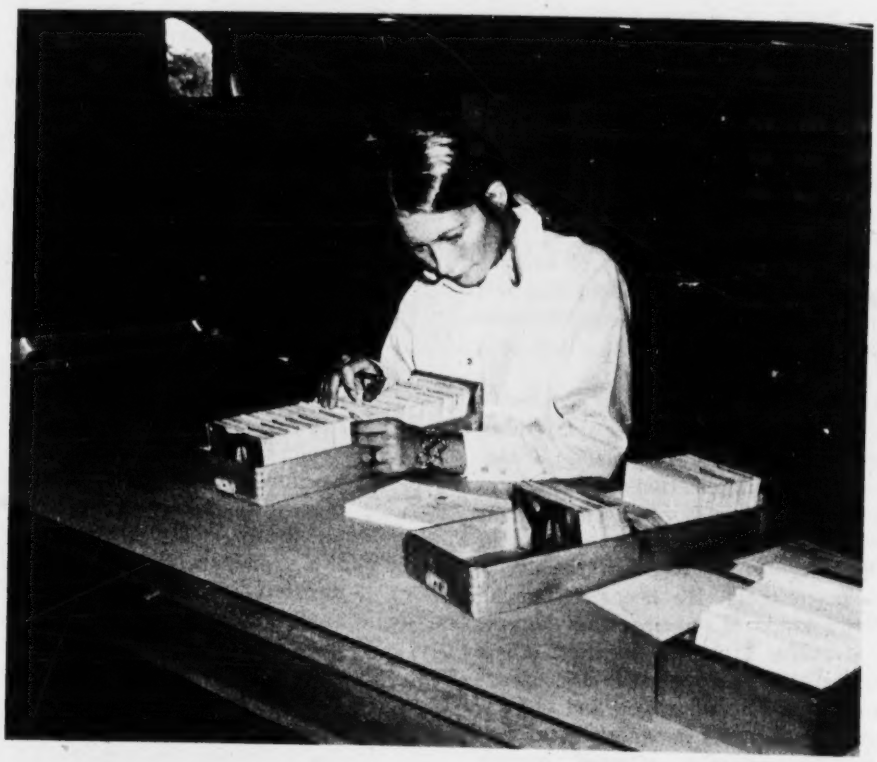


FIGURE 3 – *The library technical assistant must be able to assist in the preparation of bibliographies for special community projects.*

and, most important, the clientele of the library.

Technician education programs must provide students with opportunities to gain knowledge of the hardware, processes, procedures, techniques, materials and tools of the library. It must provide educational experiences that will develop a person with the ability to communicate with professionals and to serve as delegates or assistants to them. Some indication of the special nature of technical programs may be obtained from detailed analysis of what technical assistants must know, what special abilities they must possess and what they must be able to do in their daily work.

Special Abilities Required of Technical Assistants

Technical assistants must have the following special abilities:

1. A thorough understanding of and facility in the use of the materials, processes, apparatus, procedures, equipment, methods and techniques commonly used in the technology.
2. A broad base of general education courses to include communications, social sciences, humanities, physical sciences and mathematics.
3. An expanded knowledge in a specialized area such as medical terminology, special libraries, children's work, art, literature or science to provide the student with an individualized program consistent with his career objectives.
4. Business skills, especially typing competency, are advisable, but are not included in the curriculum.
5. Personal qualifications which include an aptitude for library work; ability to communicate clearly and to understand and follow written and oral directions; and, the ability to effectively supervise the work of others.

Activities Performed by Technical Assistants

Generally speaking a technician bridges the gap between the clerk or aide and the professional. He is part of a team. His skills vary widely with training and experience, but some generalizations can be made about the level at which he works. The main thing which separates the technical assistant from professionals — the level above him — and clerks — the level below him — is the way in which he approaches his work. The clerk receives very explicit instructions and has a definite work pattern set up for him. The professional has very vague instructions for work and must often create his own procedures to solve a problem. The technical assistant falls between these two extremes. His output is specified in general terms and he has a set of procedures to choose from to produce this output. He may choose a procedure, modify it somewhat, or synthesize two procedures into one to reach his goal. But the basic emphasis is the same at the technical assistant level: a stated goal with a number of routines to reach

FIGURE 4 — *The technical assistant must have the ability to communicate effectively with the clientele of the library.*

that goal with enough discretion given for him to choose his own work pattern to meet the goal. Research in job analysis tends to confirm this distinction between clerk or aide, technical assistant and professional and the distinction holds true from one work field to another.

Technical assistant duties are related to a variety of library functions. Depending upon the size, type and service philosophy of the library, these functions may be very general or very specialized and departmentalized, or both.

1. *Administrative Services.* Assists in administrative duties such as recommending new supplies and equipment; preparing specifications for the purchase of equipment; handling inventory responsibilities for the library collection, supplies, and equipment; compiling and tabulating data for statistical reports; training clerical staff, student aides and volunteers; assigning work distribution to the clerical and student staff; preparing reports on work programs; and, applying libraries' policies, rules and instructions.
2. *Technical Services.* Assists in technical services doing bibliographic work in the preparation of entries for acquisition. This would include verifying data, searching trade journals, catalogs and other reference tools; supervising the preparation of orders and the maintenance of order files; supervising the maintenance of records of serial publications; initial checking and revision of printed cards, and either temporary or preliminary cataloging and original cataloging in brief form; cataloging duplicate titles, and supervising preparation of additional catalogue cards; supervising filing of catalog cards; removing catalog cards for material which has been withdrawn from the collection; supervising the replacement of damaged catalog cards; and, assisting with interlibrary loan of materials.
3. *Public Services.* Assists in public services including supervising circulation routines and controls, and applying the circulation policies of the library; maintaining special and reserve collections; and, assisting in compiling reading lists, bibliographies and other selective lists of materials.
4. *Data Processing Services.* Assists with or supervises data processing operations.
5. *Related Media Services.* Supervising the maintenance and operation of audiovisual equipment, and processing, shelving and filing microforms, tapes and recordings, films and filmstrips, slides, prints and photographs.
6. *Media Production Services.* May be involved in media production services of the library which might encompass photographic production and reproduction, audio recording and duplication, and graphic design and illustration.

FIGURE 5 — *The library technical assistant must be able to implement clerical services.*

7. *Publicity and Public Relations Services.* Responsibility for publicity functions such as compiling and distributing acquisitions lists, and developing and preparing bulletin boards, displays, posters and special readig lists.
8. *Information Services.* May be responsible for answering directional or factual questions, explaning use of bibliographic tools to patrons and answering basic reference questions.
9. *Housekeeping Services.* Has the supervisory responsibility for shelving and filing functions; inventory; shelf reading; transfer of materials to storage; and, discarding of obsolete materials.
10. *Implementing Clerical Services.* Compiling statistics; assisting in the development of procedures manuals; handling the supervision of mail and routing correspondence; maintaining vertical and correspondence files; handling reproduction services; and, preparing purchase orders for library supplies and equipment.

A two-year program to educate library technical assistants must concentrate on primary or fundamental needs if it is to prepare students for responsible technical positions in the modern library. It must be realistic and pragmatic. The program suggested in this guide has been designed to provide maximum technical instruction coupled with a broad general education background in the time allotted.

To those who are not familiar with this type of educational service (or with the goals and interests of students who elect it), the technical program often appears to be inordinately rigid and restrictive. While modifications may be necessary in certain individual institutions, the basic structure and content of this program should be maintained as closely as possible in order to develop the highest level of skill, both operative and cognitive, in the time that is available in a two-year program.

The specialized technical courses in the program are laboratory and field-oriented. They provide time for the application of principles, methods and skills concurrently being taught in the courses in the technical field. The general education courses must be coordinated carefully with technical courses at all stages of the program. This coordination is accomplished by scheduling the communications, humanities and science courses concurrently with technical courses during the first three semesters. In the third and fourth semesters the student is permitted to select appropriate career electives to prepare him for further specialization in the library service of his choice. Although general education courses and career options are relatively unique to technical programs, the heavy concentration of these courses is justified on the basis of the peculiarities of this program. Since the program is library centered, the student who is to assist in the acquisition and dissemination of knowledge, in a service capacity, must be familiar with the various disciplines of modern society. He must not only be able to help others attain knowledge, but also must be able and anxious to seek and find the answers himself. Although the student may have a general education background when he enters the program, this base must be extended if he is to be an effective agent in disseminating knowledge to others.

Advisory Committee and Services

The success of this program depends, to a great extent, on the formal and informal support of the advisory committee. Before an institution contemplates the initiation of the Library Technical Assistant program, the first step should be the establishment of a local advisory committee. This committee should be appointed by the chief administrative officer of the institution and should be comprised of the following members: (1) a representative from the state library; (2) a representative of a major, local, public library; (3) the head of a special library or his designate; (4) a school library supervisor; (5) a representative of a local four-year or two-year academic institution; (6) a representative of the state library association, state special library association and state school library association; (7) a representative of the State Department of Education; (8) the librarian of the institution; (9) a student enrolled in the second year of the program; and, (10) the program coordinator. Other members might include local or state civil service board members, or additional members representing different kinds of special libraries (i.e. medical, industrial, governmental), placement counselors and teaching faculty from graduate or four-year institutions involved in library manpower development programs. These members serve without compensation. The committee normally consists of about ten members who should serve from two to three years with staggered terms

The local advisory committee should assist in studies to determine and define the following: the need for the technical assistant program; the knowledge and skills technicians will require; employment opportunities; available student enrollment; curriculum content; faculty qualifications; laboratory facilities and equipment; re-

sources both within and outside the institution; and, cost and financing of the program. If the survey indicates that a program should be initiated, and will be supported, the committee's help in planning and implementing it is invaluable.

The survey should take a form other than an informal question or two to associates of the committee member. It is suggested that some sort of task inventory be circulated to the employers in the region around the training institution. The form does not have to be elaborate and could be derived from the performance objectives which are in this guide. A checklist of performance objectives, filled out by various employers, would give the college a rather clear outline of the skills needed by the trainees to be hired in the community. Resurveying at periodic intervals and changing course content accordingly keeps the training program up-to-date and insures that trainees have a better chance for employment. In today's world of specialized skills and employment, the old concept of curriculum by guess or by past procedure is a disservice to the student and to the training institution.

Upon implementation, the committee provides continuing liaison between the community college and employers of library technical assistants. Frequently, the committee helps administrators obtain local funds and state and Federal support for the program. The committee also aids in placement of graduates of the program and in evaluating the performance of the graduates on the job. Such evaluations often indicate minor modifications which more closely align the program to employment requirements and opportunities.

The committee should meet as regularly as needed and should keep formal minutes of the proceedings which would become, in compilation, an annual report of the proceedings. For further elaboration on the role and responsibilities of the advisory committee in technical education programs refer to the American Association of Junior Colleges publication on the subject.[1]

This guide, designed primarily for the planning and development of full-time programs in post high school institutions, is a plan which can be used by the administrator of the institution and the advisory committee as a starting point for the development of their own program. It can and should be modified where necessary and adapted to meet local needs and institutional criteria.

The advisory committee should understand that the program is not intended to make an individual student proficient in all duties he might be asked to perform in all types of libraries. Proficiency in highly specialized work will come with experience and further education, or both. It is impossible to forecast the exact requirements of the duties assigned to any technical assistant and impossible to accurately predict the rate of change within various libraries. Employers of library technical assistants should expect to provide a reasonable on-the-job orientation period in order to acquaint the new technical assistant with the operational procedure of the library in which he is employed. It is recommended that the graduate technical assistant be encouraged to continue his education throughout his career in order to grow to his full career potential.

Requirements for the Administration of Programs

Responsibility for coordinating the program should be assigned to a person with library and teaching credentials and teaching experience at the community college level. In practice, the community college librarian often is the coordinator of the Library Technical Assistant program. These should be two separate and distinct positions. Close cooperation and coordination between the librarian and the program coordinator is essential for the success of the program. However, the librarian should be responsible for the administration of the library and the program coordinator should be responsible solely for the administration of the Library Technical Assistant program. The program coordinator normally reports to the administrative head of technical education programs on matters relating to the instructional program.

The program coordinator should never be the sole member of the instructional staff. He is responsible for maintaining liaison with employers and other coordinators of programs in order to keep the program current. Further responsibilities include working with teaching faculty, consultants, advisory committees, employers and employee organizations to define and redefine program goals. He must ensure that effective instruction is taking place in terms of performance objectives; organize course materials; evaluate the program; assist with a continuing program of in-service training; budget for supplies and materials; select appropriate textbooks and materials to implement the program; assist with advising and placement of students; and, cooperate with members of his staff

[1] Albert J. Riendeau. *Role of the Advisory Committee in Occupational Education in the Junior College*. Washington: American Association of Junior Colleges, 1967.

and other instructional staff of the college to see that the related and general education curriculums are consistent with the objectives of the program.

Faculty

Effectiveness of the program depends largely on the competence and enthusiasm of the teaching staff. It is important that all members of the faculty understand the educational philosophy, goals and unique requirements that characterize this program.

The institution must try to bring the most competent instructors available into the classroom. It should attempt to employ instructors with a strong educational background and proven teaching ability in the areas in which they will teach.

Minimum educational credentials of the faculty would include a master's degree from a graduate library school and such certification as local policies may require. Practical, recent working experience in the areas in which they will teach is advisable as are personal and attitudinal qualifications which will enable the faculty member to teach his subject matter effectively and inspirationally.

Programs for highly skilled library technical assistants must be a series of well-integrated, hierarchically sequenced courses if the scope and depth of training are to be adequate. New approaches to the organization of faculty should be considered. Team teaching is one possible approach. In this sense, team teaching is the organization of a technical staff into a coordinated teaching unit. Teaching assignments are made on the basis of the individual member's special training and talents. Team planning allows for concurrent courses to be closely coordinated by team members to best utilize the student's time while he is moved smoothly to progressively higher levels.

Team teaching can be developed and nourished only by the faculty. A weekly departmental staff meeting to encourage and sustain team teaching efforts is recommended. At these meetings, team members can assess and evaluate progress and plan on the basis of this evaluation and on current developments. This is especially important when a new course or a new technique is involved.

In addition to coordinating concurrent courses, staff meetings provide for free exchange of ideas on teaching techniques discovered to be useful, and on recently developed laboratory projects which seem to be particularly successful. Educational innovation and innovators should be encouraged. Autotutorial instructional opportunities should be available to the student so that individual learning abilities, rates and styles can be accommodated. With the wealth of media equipment and materials, particularly mediated self-instructional devices and materials currently available, individual instructional needs can be met more readily.

No matter how well trained a faculty member is, he should never feel that he has acquired all of the knowledge and communication skills necessary to be a master educator without a program of continuing education. Throughout his professional career he must be on the alert for new philosophies of service and for new techniques and materials leading to more efficient and effective service. He must continue to read and study and to maintain contact with the professionals in the field. He should develop a comprehensive formal and informal program for professional and personal growth.

To help keep a staff effective, an institution should encourage all staff members to up-date their knowledge of current library practice. Their knowledge of teaching techniques and innovations in education must continue to grow and expand. Membership in professional library and educational associations should be encouraged, together with active participation in professional association work at local, state, regional and national levels. Through such organizations faculty can keep up with new literature in the field and maintain closer liaison with employers of technical assistants and other leaders in the field of library education and services.

Teaching loads of the faculty in the library technical assistant curriculum should be commensurate with teaching loads of faculty in other instructional departments. A specific teaching load for a faculty member would have to be determined in accordance with the patterns of organization for instruction that prevail in a particular institution. Extensive use of self-instructional devices and materials necessarily alters the determination of teaching loads since both class size and contact hours will vary. In a traditional organizational structure, a contact-hour workload of 12 to 18 hours usually constitutes a full teaching load for faculty members in community and technical colleges.

Class size is recognized as a vital element in education. The maximum size of a lecture class may vary somewhat, depending on the material to be covered, the experience of the instructor and the teaching techniques used. Class size of 20 to 30 students is usually considered optimum for lectures.

Careful planning of laboratory teaching is important. Laboratory sections ideally should be smaller than the lecture sections of the same course. Teaching cannot be effective if there are too many students in a section or if too many activities are being carried on simultaneously in the same laboratory. Open-access laboratories, staffed by laboratory assistants, will permit students to independently pace their laboratory activities and will release faculty for the development of instructional strategies and laboratory projects, and for individualized assistance and instruction to students.

Technical programs are designed to produce supportive employees who increase the effectiveness of the total library manpower team. This principle should be applied to increase the effectiveness of the teaching staff.

Staff assistants may be used in stock control to set out the proper equipment for laboratory classes, to keep equipment operating properly, to assist in the development of teaching materials, supervise open-access laboratories, and do a limited amount of routine paper grading and project checking. When assistants do these important but time-consuming jobs, the teaching staff can devote more time to up-dating course content; selecting and preparing instructional materials; developing objectives and teaching-learning strategies; and, evaluating student learning. Resourceful use of supportive personnel makes it possible to have a small but versatile staff which may be maintained as enrollment varies.

By adjusting the size of the supportive staff to the demands of enrollment, a school may at least partially solve the problem of having too few instructors when the enrollment is high and too many instructors when enrollment is reduced. Most supportive staff members may be recruited from the student body or from graduates of the program.

Student Selection and Services

Preparing functionally competent library technical assistants makes three major demands upon the training program: (1) the training should equip the graduate to take an entry job in which he will be productive; (2) it should enable him to advance to positions of increasing responsibility after a reasonable amount of experience; and, (3) it should provide a comprehensive foundation to support further study. Students entering the program should have certain capabilities. These include comprehension and knowledge of underlying subject areas and related skills, and adequate study habits and language competencies.

The program is designed for graduates of approved four-year high schools, or those who hold the equivalent of a high school diploma. However, the ability levels of those who enter the program generally vary greatly. Many of the nation's youth, whose intelligence and interest make them capable of mastering the curriculum required in the program, have under-developed scholastic skills. If applicants for admission to the program do not have the necessary scholastic background and skills, they should be given the opportunity to enter an organized program for the development of prerequisite skills before entering the technical program. This would ensure them a good probability of successfully completing the technical program. The institution should provide developmental programs to give students this opportunity.[2] See Appendix B.

Personal interviews with prospective students for the purpose of effective guidance and counseling are essential. Students should be given interest and aptitude tests by the guidance and counseling departments of the institution to assist them in selecting educational and occupational objectives consistent with their interests and abilities. This will assist them in determining their career objectives and selecting the programs appropriate to their interests. Representative national skills and aptitude tests which currently are available and may be useful are included in Appendix C.

Students should be given a thorough orientation program upon entry to the institution. This program should include an orientation to the facilities available on the campus, including the student lounges, dining areas, bookstores and recreational facilities. In particular, they should be given a comprehensive tour of the library to familiarize them with its various facilities, and procedures and rules governing its use. This tour should include the technical processes area, media production and maintenance center, and acquisitions and distribution areas, and an introduction to the staff of the library. This tour may provide motivation and a beginning comprehension of the various operations essential to the functioning of the library.

A student organization of library technical assistants is recommended to help the students develop their common interests. Students in the organization often assist in special projects in the library and frequently contribute their time as volunteer help in many of the libraries of the community that are understaffed. In this capacity, they increase their knowledge of the library

[2] U.S. Department of Health, Education and Welfare Office of Education. *The Technical Post High School Program. A Suggested Guide.* OE-80049. Washington: Supt. of Documents, U.S. Government Printing Office, 1967.

operation, exercise skills learned in the classroom and provide valuable assistance within the community. The student organization also may assist with, and participate in, departmental activities such as "career days" and orientation of new students.

Students should be provided information regarding student membership in technical and professional organizations, locally, statewide, and nationally, and encouraged to join such organizations. Membership in professional organizations provides students with an opportunity to receive excellent material on a regular basis at a substantial reduction in cost, to associate with other people in the field at meetings and to develop the habit of regularly reading journal articles to keep their technical knowledge in the field current.

Most institutions grant graduates an associate degree in library or public service technology as tangible recognition of satisfactory completion of the program. In addition, many institutions have honor rolls for outstanding academic achievement. This type of honor roll system helps provide students with the impetus for continuing scholastic excellence. Service awards also are often given by institutions which have received work assistance from students during their programs. Some organizations may be encouraged to contribute to an annual scholarship grant.

Graduates of the program should be aided in every way in finding suitable employment. The placement office of the institution should be aware of the needs of the community for library technical assistants and should acquaint prospective employers with the qualifications of graduates. Placement of graduates is an important and multifaceted responsibility involving the placement department, the program coordinator and instructors, and, either directly or indirectly, the advisory committee. Outstanding and successfully placed graduates and their employers are the most effective advertisers of the program. In addition, the institution should conduct periodic follow-up studies of graduates in order to improve curriculum and teaching techniques, evaluate training effectiveness, maintain good employer-employee relationships, and provide continuing evaluation of the total program.

Textbooks, References and Related Media Materials

Textbooks, reference materials and related media materials for teaching any technology should be reviewed continuously and revised or replaced in view of: (1) the rapid development of new knowledge, techniques and procedures in the field; (2) the results of research in methodology of teaching in the field of library technology; and, (3) the dynamics of change within the service structure and philosophy of library institutions. The library as a service institution is a viable agent of change in society. The commitments of the library to society are forever expanding and whole new areas of service and system development are demanding new textbooks, reference materials and related media materials. It is therefore mandatory that instructors constantly seek and review new textbooks, references and related media materials as they become available, and adopt those that are an improvement over those suggested in this curriculum guide bibliography, or those currently in use.

The suggested materials included in this guide have been carefully selected. However, more good textbooks directed specifically to the technical assistant level are needed in the program. From the lists included herein it should be possible to select suitable textbooks. There are, no doubt, other materials which also are excellent and may have inadvertently been overlooked.

Before the coordinator undertakes a Library Technical Assistant program, he should familiarize himself with the texts, references and related media materials listed here and others which may be available. He then will be able to select the materials which best serve his particular demands for a course of study.

Related media materials are most useful in teaching programs. The materials noted here have been selected from an extensive list and represent those considered most suitable at the time the guide was prepared. An all-inclusive listing is prohibitive. However, the instructor should make every effort to be informed in regard to new materials being produced, which are pertinent to the program and his teaching objectives. If materials, which might be beneficial in clarifying a particularly difficult concept, are not available commercially, the instructor should be willing to initiate the design of instructional media and elicit the help of the institution's media production services for the preparation of the materials he has designed. All media materials should always be previewed before showing to the class. An effective method of utilizing the material and follow-up evaluation of concepts also should be developed.

Library Resources

Since library resources are essential to the curriculum, no training program for library technical assistants should be initiated until the library meets current professional, regional,

and/or state standards such as, the American Library Association Standards for Junior College Libraries (rev. ed.) in terms of space, collections, organization of materials and staff, and other minimum standards which will directly influence the quality of the program.

The library budget should be determined in relation to the total budget of the institution for educational and general purposes, but the amount to be allocated to the library should be based upon the most current standards for optimum library service in support of the school's goals. The budget should be increased substantially when appropriate for an increased student enrollment, additional course offerings and for the provision of related media services. The library budget for a newly organized institution should be considerably higher than that for an established institution.

The library should be a comprehensive materials center, which includes a full range of media materials to encompass all of the subjects in the program. This coverage should extend beyond the degree of complexity or depth of knowledge presented in the classrooms and laboratories. The library content should meet the needs of both full and part-time students' supplemental courses to upgrade or update their knowledge and skills. It also should help the instructional staff to keep abreast of the literature of the field and the emerging concepts and developments within the library.

The coordinator of the Library Technical Assistant program should be a member of the library committee and should be active in the selection of reference and related materials for the program. The teaching staff and the library staff should cooperate in determining what materials are to be acquired. They must take additional time and effort to recommend materials that will help to keep the library current, pertinent and useful.

A strong reference collection is vital. It is essential that the students become familiar with the tools of the library. The better the library collection is, the better the results of instruction in the program. This will not only benefit the Library Technical Assistant curriculum, but also will better serve all of the students in the institution, irrespective of the particular curriculum in which they are enrolled.

Participants in the Library Technical Assistant program must have easy access to a wide variety of materials for the development of skills and knowledge necessary to their careers. Therefore, there should be classroom, laboratory facilities and faculty office areas with immediate access to the library.

Further suggestions and discussion of library content for the curriculum are provided in Appendix D.

FIGURE 6— *Reference material for the student to learn about a variety of media is essential for the library technical assistant program.*

Laboratory Equipment and Facilities

Well-equipped laboratories for teaching library technology are essential to the program since the objectives and the quality of the curriculum depend on the student getting valid experience with the tools and techniques of the trade. This experience should be basic in nature and broad in variety. There should be adequate facilities to enable all students to work in the laboratory. Variety and quality of equipment and materials are more important than quantity in the basic laboratories required for effective instruction. Laboratory equipment and facilities are a major element of the cost of such a program, but they are indispensable if the program objectives are to be met.

In the selection of laboratory equipment, the need for each item should be well defined. A recommended approach to developing laboratory work and equipping the laboratories is to determine what experiences are needed for each course and then to design the exercises using standard equipment and materials which are representative of those currently being used in libraries. This approach requires additional staff time for planning, but it usually results in improved teaching. Laboratory equipment and facilities are discussed in more detail in a later section entitled "Facilities, Equipment and Costs."

FIGURE 7 – *Instructional materials are selected to meet and/or produced to meet the objectives of the courses in terms of student learning outcomes.*

Professional and Technical Societies

Professional and technical societies and associations extend several important benefits to faculty and students. Such societies provide, through their publications and meetings, immediate reports and continuing discussion of new concepts, processes, techniques and equipment in the library field. They are an invaluable aid in keeping abreast of new developments in library services.

Less conspicuous, but extremely important, is the support which societies may give in helping identify the need for an educational program; establishing guidelines for programs; promoting and enlisting members' support of the program, and assisting in the acceptance of the graduates as members of the library manpower team.

Instructors should be encouraged to become active members of these societies. Membership will enable them to meet people who are most actively interested in the field. Many educational institutions pay all or part of the costs of membership dues and attendance at local or national meetings in order to encourage staff participation.

From the beginning of the educational program, students should be required to become acquainted with the literature and services of professional and technical societies. They also should be encouraged to join those which offer affiliate memberships.

Following is a listing of professional and technical organizations whose publications and services are valuable to teachers and students in the Library Technical Assistant program:

American Association of Junior Colleges (AAJC)
American Association of Law Libraries (AALL)
American Library Association (ALA) (including its divisions)
American Society for Information Sciences (ASIS)
American Technical Education Association (ATEA)
Association for Educational Communications and Technology (AECT)
Association of Jewish Libraries
Canadian Library Association (CLA)
Catholic Library Association (CLA)
Council on Library Technology (COLT)
Educational Film Library Association (EFLA)
International Association of Agricultural Libraries and Documentalists
Medical Library Association (MLA)
Music Library Association (MLA)

National Education Association (NEA)
Special Libraries Association
Theatre Library Association (TLA)

A brief description of some of these groups and their publications as of 1970 is given in Appendix E.

THE CURRICULUM

Curriculum Outline

	Hours Per Week			
First Semester	*Class*	*Laboratory*	*Outside Study*	*Total*
Introduction to Library Resources and Services	2	3	4	9
Introduction to Technological Media	2	6	4	12
Communications I	3	0	6	9
Biological or Physical Science (choice)	3	3	6	12
Mathematics (elective)	3	0	6	9
	13	12	26	51
Second Semester				
Technical Processes I	2	6	4	12
Technological Media Production	2	6	4	12
Communications II	3	0	6	9
Humanities I	3	0	6	9
Data Processing Applications	2	3	4	9
	12	15	24	51
Third Semester				
Reader's Services	3	0	6	9
Public Service	2	6	4	12
Technical Processes II	2	6	4	12
Humanities	3	0	6	9
*Career Elective	3	0	6	9
	13	12	26	51
Fourth Semester				
Application of Computer and Automation Technology to the Library	2	3	4	9
Supervised Work Experience	1	12	2	15
Sociology	3	0	6	9
General Psychology	3	0	6	9
Career Elective	3	0	6	9
	12	15	24	51

*See example: Childrens' Library Services

Brief Description of Courses

Introduction to Library Resources and Services

An introduction to the historical and sociological development, purposes, functions, services, terminology, tools and organizational structure of various types of libraries. The role of the library technical assistant as a member of the manpower team in the library is examined.

Introduction to Technological Media

In this course, the concept of the library as a total resource center is emphasized. The student is introduced to a diverse range of technological media. The characteristics, advantages and limitations of various types of audiovisual equipment and materials are considered. Also included is an introduction to sources of materials, acquisition tools and techniques, and methods of scheduling and distribution of media equipment and materials. Laboratory experiences are provided in the operation and minor maintenance of equipment and materials.

Communications I

This is a course through which the student will gain experience in reading, writing, speaking and listening in relation to expository prose. The student will learn the basic techniques used in expository communication by means of speaking and writing as well as through critical analysis of speeches and written expository prose.

Biological Science

This course presents some of the basic principles of the biological sciences. The emphasis throughout is on the inquiry process. Content is presented as inseparable from the inquiry process that produced it.

Physical Science

This course provides an introduction to some of the basic laws of chemistry, physics and the earth sciences. Emphasis is on the application of basic physical ideas to the interpretation of our physical environment.

Mathematics (elective)

The mathematics requirement of this program provides for an elective course to be determined based on the student's background in mathematics and career interests with regard to the type of library or activity in which he will be engaged. The choices might include "Modern Mathematics", which provides an introduction to the structure and logical foundations of mathematics and would be useful in data processing and computer operations; "Statistical Techniques", which emphasizes the techniques of data gathering and graphical presentations and would be useful for statistical analysis of many library operations and activities; or, "Business Mathematics", which would be useful to the student who would be working in the administrative and business operations area of a particular library.

Technical Processes I

This course is designed to give the student an understanding and skill in the use of bibliographic tools and searching techniques commonly used by libraries in identifying materials to be requisitioned. Processing, storage and retrieval of diverse forms of special materials such as government documents are emphasized. A basic knowledge of work flow in a technical processing department is imparted.

Technological Media Production

This course is designed to develop the basic skills necessary for the production of a wide variety of media materials. Training is provided in the application of the basic elements of graphic design and display, production of projection materials, sound recording and reproduction, and the duplication and copying of print materials.

Communications II

This course utilizes the mechanics and dynamics of group discussion in the evaluation of mass media in American society. Emphasis is upon positive participation in enlightenment or problem-solving group discussion in the capacity of leader or participant. The student will be expected to make value judgments based on careful consideration of the impact of mass media upon American society.

Humanities I

The humanities are a key to the world of new experience. Through the synthesis of painting, sculpture and architecture, the student becomes aware of man's cultural accomplishments from ancient to modern

times. The purpose of this course is to stimulate an appreciation of art forms and to become acquainted with fundamental criteria for evaluation.

Data Processing Applications

An introduction to the field of automated data processing as it applies to various institutional operations, this course will include history, equipment familiarization and application analysis. Topics covered are: past, present and future ramifications of data processing technology upon society; input-output media; automatic data processing equipment and basic functions; documentation techniques; and, general applications. Laboratory exercises involve various data collection devices, punched card equipment, basic systems analysis and design tools, and "hands on" operation of a computing system.

Readers' Services

This course emphasizes the role and functions of the library technical assistant in relation to the principles of readers' services in various libraries with emphasis on the use of general reference tools.

Public Service

This course is designed to acquaint students with the numerous kinds of public services that may be found within libraries. These include circulation, interlibrary loan, services to the handicapped and elderly, community programs—particularly as applied to urban areas and minority groups—and the library as a community service agency.

Technical Processes II

This second course in technical processes expands the concepts developed in the preceding course. It introduces the student to the various methods of organizing library materials. The logical and systematic arrangement of materials for storage and retrieval is emphasized, as well as the organization of information for input into storage systems and basic filing rules.

***Childrens' Library Services**

This course is designed to acquaint students with a variety of materials for children. Procedures and techniques for working with children are emphasized as well as the implementation of special programs within the library. Early childhood programs and the duties involved in service at this level are stressed.

Humanities II

"Humanities II" opens the world of sound and the written word. The student examines man's contribution to these forms of artistic expression through music and literature. The purpose of this course is to have the student meet music on its own terms and to enable him to listen to it intelligently.

Application of Computer and Automation Technology to the Library

Computer and information processing technology will be applied to library systems and information centers. Problems of bibliographic control, standardization, interlibrary cooperation, file maintenance and improved statistical data will be related to automating the operations of circulation control, acquisition and catalog card production.

Supervised Work Experience

The main objective of this course is to provide the student with an opportunity to observe and gain practical work experience under the supervision of professional library staff. Once a week for the duration of the semester, the student will meet in seminar with the instructor to discuss and evaluate progress in the field experience and to discuss principles of effective supervision and management as it applies to his role in the library manpower team.

Sociology—Culture and Society

This course introduces the student to basic social and cultural phenomena. Major emphasis is placed on personality development, the nature and function of social institutions, family life, race relations, group interaction, and social and cultural change.

General Psychology

This will be a study of the general characteristics of human behavior through an introduction to the fundamental psychological concepts and principles derived from the

scientific approach. Basic concepts are stressed such as motivation, development, learning, perception, emotion and personality.

Career Electives

There are many types of libraries in which the graduates of a two-year program in library technology may seek employment. In addition to the variety of libraries common in the United States today, there are several departments within larger libraries in which to be employed.

In recognition of this prevailing situation, it is desirable to provide the student in this program with the option of choosing at least two courses on the basis of his career expectations which will better prepare him for his desired employment.

The courses selected by the student may be in the areas of general education, business, science, mathematics or any of a variety of courses being offered in other departments within two-year institutions. It would be impossible and impractical to include outlines for such a wide variety of courses already being taught which might be relevant to a student's special interests. Instead, it seemed realistic to include as an example, an outline of only one (i.e. Childrens' Library Services) of many possible choices of a career elective that might be offered in the technical curriculum if student interest and enrollment warrants the addition of further technical courses.

Content and Relationships

Functional competence in any of a variety of libraries and job responsibilities within the library demand that the curriculum be structured around three essential components.

1. The training should prepare the graduate to be a productive member of the library manpower team in an entry level job.
2. The technical curriculum, together with a reasonable amount of experience, should enable the graduate to advance to positions of increasing responsibility.
3. The foundations provided by the training program should be broad enough to permit lateral as well as upward career mobility so the expectations of the student in this respect are not "dead end." Upward career mobility and lateral mobility among differing jobs at the technical assistant level should become a reality through the student's experience and continued education.

The suggested curriculum in this guide has been structured to accommodate these components.

This two-year technology program has certain unusual requirements that influence the content and organization of the curriculum. The curriculum for library technical assistants is unique in that it requires more concentration and emphasis on general education, or college parallel curriculum courses, than most two-year technology courses. This is because preparation for work in libraries relies heavily on a knowledge of books and other media formats which requires a greater dependence on content often considered non-vocational. This requirement is imposed by the occupational functions that graduates are expected to perform. This curriculum guide reflects three basic requirements: functional utility, specialized technical skills and provision for the principles of application, extension and broadening of the base of knowledge and skills.

The sequence of courses in the two-year technical curriculum is important in view of the limited time available. In general, the subject matter is coordinated in sequences of concurrent courses which are arranged to progress smoothly from one group of courses to the next. The student then is able to deepen his understanding of basic principles, while broadening his scope of understanding in the many diverse areas of knowledge and skills which he will need to work in a library.

The relationship between laboratory time and class lecture time is important in the technical education curriculum. The skills, techniques, applied principles, materials, information and procedures introduced in lecture sessions are much more meaningful to the student when laboratory time is provided for practice of the theory and principles introduced. Skills, procedures, techniques and capabilities, which are essential to the technical assistant's future work, cannot be acquired in classrooms without laboratories.

In addition to effective laboratory sessions for the reinforcement of skills, concepts and theory can be taught in lecture sessions or laboratory sessions if the instructor integrates selected related media, demonstrations and selected texts and references, coupled with regular and systematic outside study by the student. The student needs to become proficient in obtaining knowledge from printed sources as well as other sophisticated forms of mediated instruction. Thus, there must be a special relationship between the amount of technical content taught in the lecture classes and that taught in the laboratory.

This curriculum attempts to distribute equally the amount of time required for laboratory

hours and the time spent in lecture sessions throughout the four semesters that constitute the program. It follows a logical sequence of courses and attempts to predicate laboratory experiences upon the theoretical knowledge introduced. As soon as the underlying principles can be developed and understood by the student, they can be incorporated into the laboratory work which becomes more significant in that the student can experience and practice the principles introduced and prepare for further in-depth subject matter.

It is important that a balance be maintained between the relative number of semester hours of laboratory work in the technical specialty and class theory hours. Technical assistants are expected, in occupational roles, to perform at both the operative and cognitive levels. They must be conditioned to performance skills and standards through their laboratory experiences. A reduction in the laboratory hours as outlined could cause the student to lose interest and abandon the course. Or it could produce a graduate who is deficient in the essential performance capabilities required. This could make him unemployable at the technical level.

In technical education curriculums it is essential that some specialized technical course work be introduced in the first semester. Deferring this introduction for even one semester imposes serious limitations on the effectiveness of the entire curriculum. Immediate introduction of the technical courses has several advantages:

1. It enhances motivation. Since the student is enrolled in a Library Technical Assistant program, it is important to introduce him to his occupational specialty as soon as possible. This has two benefits. The student is able to determine early in his educational program if this specialty is the one for which he is best suited and in which he is most interested; and he is immediately introduced to the beginning library skills necessary for further course work.
2. It helps to establish a broad general foundation in the specialized technology so he is better prepared for greater depth and concentration in the more difficult technical courses that follow.
3. It helps the student to see immediate value and application of the knowledge he acquires in the academic or nonvocational subjects which are essential to his occupational future.

Service to the clientele and cooperation within the library manpower framework must be an underlying theme throughout the program. The role of the library technical assistant is service oriented no matter what his level of responsibility or type of institution in which he is employed. His time must be directed toward satisfying the needs of clientele for the information, materials and assistance requested. In this service capacity the technical assistant needs to develop the ability to adapt readily to a variety of persons and situations; to work efficiently and harmoniously with others; and, to acquire the attributes of resourcefulness, judgment, initiative and dependability. Services, and all of the accompanying implications of the concept, must be a constant preoccupation that is emphasized continuously from the beginning of the program.

The ability to organize work and utilize time, and to interpret oral and written instruction accurately, is an important aspect of the training of the technical assistant. He must be able to interpret and represent the institution which employs him in an accurate, efficient and cooperative manner.

Throughout the program, the student is exposed to the skills and techniques required for meeting the objectives of acquisition, organization, and dissemination of information and services to the library's clientele. A knowledge of the operational levels of work in a variety of libraries is essential for technical assistants. Laboratory activities are assigned to implement the development of necessary skills. The student must be acquainted with various aspects of library service in order to assist in public service and reference functions within the library.

From the total program the student should obtain a broad overview of the modern concept of the library. Field trips to a variety of libraries help the student become acquainted with the functions, services and procedures of particular libraries. They also create interest, reinforce learning and stimulate motivation.

In the first semester the "Introduction to Library Resources and Services" course provides the student with a beginning concept of the organizational structure, purpose, functions and services of different types of libraries. An analysis of the roles and responsibilities of library staff is presented, and emphasis is given to basic tools, techniques and terminology unique to the field. An introductory course to technological media is also presented during the first semester to enable the student to visualize the library as a total resource center. In this course the student is introduced to the entire range of media and familiarized with selection, acquisition and dissemination methods unique to the format of the material.

The second semester course in "Technological

FIGURE 8 – *Providing film for individual and group use is frequently a service function of the library.*

Media Production" provides training in techniques of producing media materials, including reproduction and duplication techniques.

"Technical Processes I and II" develop the skills required for the use of bibliographic tools in the acquisition, organization and dissemination of library materials.

"Readers' Service" and "Public Service," both of which are offered in the third semester, emphasize the use of general reference tools and acquaint the student with the many public services provided by libraries.

"Application of Computer and Automation Technology to the Library" in the fourth semester builds on the foundation established in previous library technical assistant courses and the basic data processing course to extend the range of the student's familiarity with automated procedures and equipment within the library.

In the last semester, "Supervised Work Experience" provides the student with an opportunity for field work experience in two or more library-media centers and includes a variety of work-learning experiences. Weekly seminars and discussions provide the opportunity for an evaluatuon of the work experiences, and an analysis of employer-employee relationships within the library.

General education courses are essential to the objective of a broad base of education which is a necessary requirement of the Library Technical Assistant program. In the first two semesters of the program, the students acquire basic skills in communication including exposition and research technique, reading, listening and effective speaking, and group discussion and the mass media. During the first year the student should also take a course in science and one in mathematics.

Two courses in humanities are suggested during the second and third semesters so that the student can develop a general background in art, music and literature.

"Data Processing Applications," should be offered in the second or third semester as an introduction to the field of automated data processing and equipment familiarization. This will provide the foundation for the applied computer technology course in the final semester.

Basic sociology and psychology courses are recommended during the fourth semester to instill in the student an understanding of society, human behavior, culture, social change and the meaning of democracy.

Close compliance with the sequence of the general education courses within the semester outline, as set forth in this guide, is not imperative owing to the diverse areas of study. However, "Communications I and II" should be required within the first year, and "Humanities II" should follow "Humanities I." Also, the mathematics course should precede "Data Processing Applications."

The two career electives should be taken during the third and fourth semesters when the student has a fairly definite concept of the type of library in which he would like to be employed and therefore can select courses that will direct-

ly benefit him in his area of specialization.

The course outlines included herein are concise and comprehensive, and are intended as guides to the instructional program. They represent a judgment of the relative importance of each instructional unit, especially where time estimates are shown for the divisions within each course. The instructor should supplement the principles outlined in these courses with practical applications whenever possible. Field trips are important to the effectiveness of instruction to allow students the opportunity to view in operation much of the new equipment and technology that has become a part of the operation of the modern library. Otherwise, it would be impossible to provide these experiences as no institution can justify the purchase of a truly representative collection of the modern equipment being utilized in library operation. Field trips should be carefully planned so that students understand the objectives, and can observe and relate them to the subject material they are studying.

Outside study is a significant part of the student's total program. In this curriculum, two hours of outside study time are suggested for each hour of scheduled class time. For example, a typical weekly work schedule for a student in the first semester of this curriculum is class attendance, 13 hours; laboratory, 12 hours; and, outside study, 26 hours, for a total of 51 hours a week. This represents a complete schedule for a full-time student in the program.

Whenever possible, summer employment in a library should be encouraged and arranged for the students. Frequently local library administrators will cooperate with such a program.

Cooperative Education

This suggested curriculum is adaptable to a cooperative arrangement which offers important advantages to students, to the institution and to employers of technical assistants. A cooperative education program is a plan for the student to learn through coordinated study and employment experience. This may be accomplished in two different ways.

The student may alternate periods of full-time attendance at the institution where he is enrolled with periods of full-time employment in a library or he may split his schedule to go to school part time and hold part-time employment in the library. Scheduling of course offerings within the curriculum should be flexible enough so the needs of the part-time student or occupational education student can be accommodated. Employment on a part-time or alternate basis, in conjunction with the program, constitutes a desirable element in the library technical education program. The student's employment should be related closely, if possible, to some phase of the area of study in which he is engaged.

When a student is given the opportunity to apply his knowledge in a work situation, academic study becomes more meaningful. The working student learns not only the essential library skills, but also the importance of reliability, cooperation and judgment.

The student's career choice is stimulated and shaped by his work experiences. If he finds satisfaction in his employment, he comes to the classroom stimulated to learn as much as possible about his field. If he does not find satisfaction through work experience he may decide to change his career decision. This decision may save him from wasting his time and money on a misguided choice of study.

The student's schedule in a cooperative or part-time educational program requires more than the two years outlined in this guide for the completion of his educational curriculum. The amount of additional time needed depends on the time that each student has available for course work in relation to his time on the job.

Specific employment is obtained, as circumstances permit, by the educational institution with the cooperation of employers and the student. The work experience should be regarded as a learning situation and not just an earning opportunity. However, each student should be paid the prevailing wage for the job he holds. This work opportunity provides the dual purpose of reinforcing learning with a supplementary income. This is essential for many students if they are to remain in school. The student should not be paid for the supervised work experience course which is a requirement of the program in the last semester, as this is a credit course.

As a result of their work experience in particular establishments, many students have been offered permanent positions upon completion of their formal programs. However, employers should be discouraged from making permanent job offers to the student until he completes his program.

Cooperative programs provide opportunities for the educational institution to maintain close contact with employers of library technical assistants. This contact becomes a two-way channel of communication which helps the educational institution to keep its knowledge of specific employer needs in the technical area up-to-date and, at the same time, keeps employers acquainted with and involved in the program of the institution.

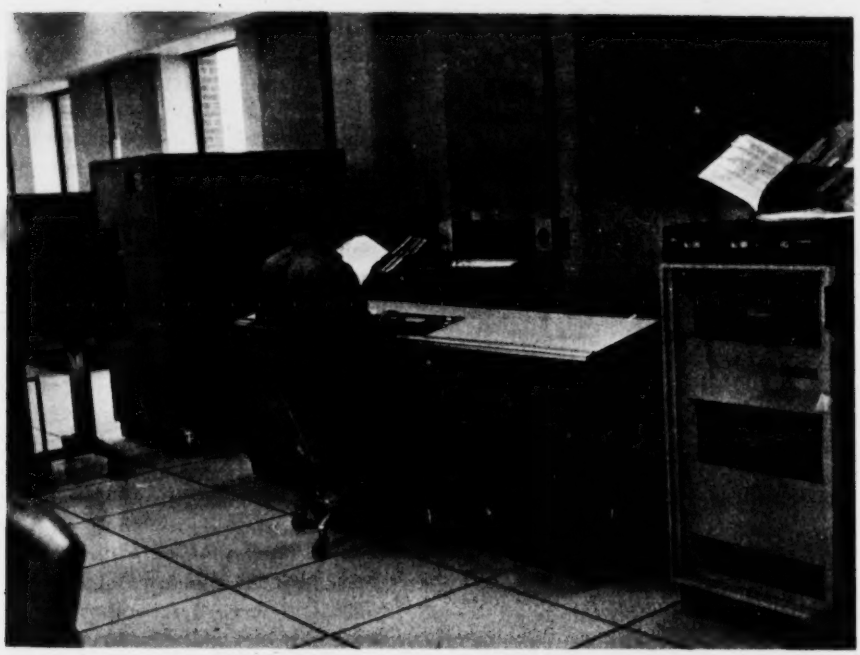


FIGURE 9— *Continuing advanced study for the graduate library technical assistant is desirable to keep abreast of technical developments and current changes in the field.*

Suggested Continuing Study

A two-year curriculum must concentrate on the primary skills and related knowledge necessary to prepare the student for employment after graduation. Therefore, a two-year program cannot cover in depth all of the subjects pertinent to employment in a library at the technical level. Many related subjects and general education or college parallel subject areas can and should be studied in greater depth. In addition, the graduate may obtain work in a library where the concepts and technology utilized are so new to the library field that they still are being implemented into the program. Also, the student may elect employment in a library so specialized in its services and clientele that it would be impossible, in a two-year program, to completely prepare the student for this position.

In view of the fact that there are so many types of libraries with diverse functions, services and clientele, an effort has been made in this curriculum guide to permit the student to select two career electives during the last year of his program. This is a beginning toward career tracking and specialization. However, in many instances where highly specialized skills or in-depth knowledge are essential, these two electives are inadequate for thorough preparation.

For these reasons, some form of continued study for the graduate of this program is desirable. The student can keep abreast of technical developments and current changes in the field by making a continued effort to examine the related literature, by attending meetings of local, state and national library organizations, and by continuing on-the-job study. It should be recognized that regardless of the quality of the educational program, there is a continuing period of job orientation and learning in any occupation or institution. On-the-job training is a continuing process that will assist the student in the development of skills and knowledge essential to his particular role in the library manpower team.

Formal continuation of education, either through supplementary courses or in a formal program on a part-time basis, provides the most efficient and practical means for the graduate technical assistant to add important knowledge and skill to the base of his initial education. Formally organized courses provide a systematic arrangement of subject matter, disciplined and competent teaching, and class interaction. Many institutions schedule evening or Saturday classes to accommodate working students.

Rapid advances in library services, methods, systems and forms of materials require a continuous updating of the education of the technical assistant. Continued study for the graduate library technical assistant might include enrollment in a formal program leading to an advanced degree in liberal arts, education, library science or instructional technology. The student employed in a special library may wish to take further courses in business, science, data processing or any number of areas requiring in-depth knowledge and skill for proficiency on the job.

Further education also could be undertaken on a selective basis outside of the structures of a formal college program and the student might elect to take courses in any of the following subjects:

Graphic Design and Illustration
Business Management
Advanced Computer Technology and Programming
Legal Terminology
Medical Terminology
Medical Record Keeping
Supervision and Management
Systems Design and Analysis
Photography
Public Relations

Any specialized subject area courses which would provide a broader knowledge base in a specific discipline and aid the student in the performance of his particular job should be considered.

COURSE OUTLINES

The courses outlined comprise a suggested guide to the objectives and content of a two-year curriculum designed to train library technical assistants. Each course outline has been reviewed by experienced instructors representing the particular discipline. The total program has been reviewed by faculty representing successful library technical assistant programs and employers of library technical assistants.

Course outlines include a description of course content with suggested methods and procedures for conducting class and laboratory activities; major divisions of the course with a breakdown of laboratory or class time or both for each division; performance objectives; a list of text and reference materials; and, related media.

Content within courses may be modified to meet local needs. It is desirable to capitalize on special facilities and teaching expertise but the overall objectives and basic content of the program should not be compromised.

Performance level objectives are included for each course. These objectives are stated in terms of student learning outcomes. They indicate, in specific terms, what the student should be able to do to demonstrate attainment of the objectives following the teaching-learning experiences provided in each course. The objectives are derived from the structure of the discipline and an assessment of requirements for on-the-job performance as it relates to the specific discipline. Course content, teaching-learning strategies and instructional materials are selected to meet the objectives. The conditions under which student performance is to occur and the level of performance required is sometimes stated and often implied in the performance objectives. Objectives may be revised or expanded to include stated conditions and levels of performance and additional objectives constructed to meet local requirements.

Outlines are designed to cover 16 weeks of instruction but a 17-week semester is assumed to allow for evaluation of student performance. By using the performance objectives judiciously and planning instruction around them, a form of individualized instruction can be developed. Thus, the time needed could vary widely with the ability of the student. The actual construction and scheduling of examinations is left to the discretion of the instructor. Test items and criterion measures to draw from, however, are either given or implied in the performance objectives. Continuous evaluation throughout the course is desirable for both the student and the instructor. It enables the student to assess his progress and direct his efforts accordingly. The instructor can assess the effectiveness of instruction, based on student learning outcomes, and revise methods and materials as necessary.

A list of text and reference material is given for each course. The lists are not exhaustive and a single text for a particular course is not prescribed. This material is included to indicate some of the texts and references presently available. The list should be continually updated as new material becomes available or older material is revised. Selection of specific materials should be the result of careful analysis and evaluation as to content and pertinency.

Commercially produced, related media are suggested for many of the courses. These materials should be previewed before use and selected on the basis of specific contributions to attainment of course objectives. They should form an integral part of the instructional design. Usually commercially produced materials must be supplemented by locally produced materials designed by the local instructional staff.

Programs may be conducted on a semester, quarter or trimester systems. The two-semester-a-year system illustrated in this guide may be changed to meet local community requirements. Course content can be restructured to be distributed over six quarters since the total amount of time required to complete the program is the same.

Laboratory sessions suggested in the outline and in the course descriptions are not intended to be a single session but rather to be scheduled in reasonable and effective increments. Any divisions of laboratory time that are appropriate and effective should be scheduled.

Technical Courses

INTRODUCTION TO LIBRARY RESOURCES AND SERVICES

Hours Per Week

Class, 2; Laboratory, 9

Description

This course is an introduction to the purposes, functions, services and organizational structure of various types of libraries: school media centers, special, public and academic. Basic materials, techniques and terminology common to libraries are covered. A brief study of the management structure and operational procedures within each type of library is undertaken as well

as the role of the library technical assistant in an occupational capacity.

To facilitate learning of the preceding skills, knowledges and concepts, laboratory activities are an integral part of the course. The laboratory time should be used for field trips to the various types of libraries; "hands-on" familiarization with the basic materials used in libraries including specific reference works and newer media; developmental study of work flow, time-motion and other work supervision tools; and, observational studies of library work practices.

Major Divisions

Class	Hours Class	Hours Laboratory
I. Introduction to Libraries ..	8	12
II. Historical and Sociological Development of Libraries in the United States	4	6
III. School Media Centers	4	6
IV. Special Libraries	6	9
V. Public Libraries	6	9
VI. Academic Libraries	4	6
Total	32	48

I. Introduction to Libraries

A. Performance Objectives
Upon completion the student should be able to:
1. State the general purposes of libraries
2. List and differentiate among types of library agencies and their services
3. Demonstrate a knowledge of the kinds of materials libraries house and disseminate
4. Describe and distinguish among various library work tasks; those that are clerical, paraprofessional and professional
5. Describe the integrated work relationships among all the workers in a department or small library
6. Describe and diagram work flow patterns in libraries
7. Demonstrate the analytic technique of time-motion study to a specific task
8. Define the terms that are most commonly used in library work
9. Locate and find the basic materials housed in the library through catalogs by main entry, title and subject
10. List and briefly describe the functions common to all libraries
11. Demonstrate a thorough knowledge of the basic function inter-relationships in a library
12. Describe briefly the common services of a library
13. Describe the use of equipment commonly found in most libraries

B. Units of Instruction
1. General purposes of libraries
   a. Information retrieval service for patrons
   b. Storehouse of man's accumulated knowledge
   c. Study and resource center
   d. Recreational center
2. Library materials
   a. Books
      (1) Reference: Encyclopedia, dictionaries, almanacs, indexes, handbooks, atlasses, bibliographies
      (2) General circulation
      (3) Rare books, manuscripts and special collections
   b. Periodicals
      (1) Magazines and journals
      (2) Annuals
      (3) Rare books, manuscripts and special collections
   c. Microforms
      (1) Microfilm
      (2) Microfiche sheets
      (3) Micro-opaque cards
      (4) Microfiche operature cards
   d. Graphics
      (1) Maps
      (2) Charts
      (3) Flat pictures
      (4) Art prints
   e. Vertical file
      (1) Pamphlets
      (2) Documents
      (3) Leaflets
   f. Film
      (1) 16 mm. motion picture
      (2) 8 mm. motion picture
      (3) Filmstrips
      (4) Slides
      (5) Video tape
   g. Sound recordings
      (1) Phonodiscs
      (2) Phono tape
3. Library equipment
   a. Public catalog

(1) Dictionary
(2) Divided
(3) Integrated materials
(4) Component parts of the entry
(5) Call number

b. Seating
(1) Carrel
(2) Table
(3) Lounge

c. Shelving
(1) Storage (magazine, book, film, recording)
(2) Display (magazine, book, recording)
(3) Open, closed
(4) Newspaper racks
(5) Vertical files
(6) Map cases or cabinets
(7) Microform cabinets

d. Office
(1) Cardex
(2) Shelf-list catalog
(3) Cash register
(4) Accounting machines
(5) File cabinets
(6) Typewriters
(7) Photocopy

e. Processing
(1) Typewriters
(2) Labelers
(3) Erasures
(4) Cameras
(5) Photocopiers
(6) Automated systems

f. Public service
(1) Circulation
(2) Microform display

4. Library personnel
a. Clerical
(1) Public service
(2) Technical service
(3) Administrative service

b. Para-professional
(1) Library technicians
(2) Library assistants
(3) Technician specialists (e.g. electronic, media, computer programmers, graphic artists)

c. Professional
(1) Librarians
(2) Subject specialists and bibliographers
(3) Personnel and budgeting officers
(4) Media specialists
(5) Administration

5. Work organization
a. Work flow patterns
b. Time-motion study
c. Departmentalization

6. General organizational structure
a. Administration
(1) Governing boards
(2) Executive head
(3) Staff heads
(4) Line heads

b. Departments
(1) Staff; e.g. personnel, budget, housekeeping
(2) Line (operational units)

C. Laboratory
1. Field trip to parent institution library for purposes of orientation
2. Locate the various areas of the library; i.e., reference collection, stock area, periodical storage, microform area, media center, acquisitions and technical processes, public service, circulation and reserve collection
3. Locate and retrieve a variety of materials by main entry, title and subject using the public catalog
4. Sketch a floor plan for the stock area of the library to provide for expansion and easy accessibility
5. Reshelve a variety of books and replace vertical file materials, media materials, microforms and periodicals
6. Identify the components of several entries in the public catalog
7. Observe the work functions of each department of the library

II. Historical and Sociological Development of Libraries in the United States

A. Performance Objectives
Upon completion the student should be able to:
1. List and briefly describe the formal national organizations that serve libraries and library personnel
2. List the important events relevant to the historical development of libraries in the United States
3. Describe the general historical role of libraries in American society
4. Describe the current orientation of libraries toward society
5. Discuss current societal attitudes toward libraries, including censorship and humanization vs. computerization

B. Units of Instruction
1. Historical development of libraries in the United States

a. Colonial libraries
b. Nineteenth century
(1) Pre-Civil War
(2) Post-Civil War
c. Twentieth century
(1) Pre-World War II
(2) Post-World War II
d. Emerging responsibilities of state and regional library centers

2. Libraries in contemporary American society
a. Library organizations
(1) National
(2) Regional
(3) State
(4) Local
b. Current societal attitudes toward libraries
(1) Demand for accountability
(2) Computerization vs. humanization of services
(3) Censorship
c. Changing attitudes in library service and status
(1) Active response to societal needs
(2) "Freedom to read"
(3) Unionization vs. association

C. Laboratory
1. Field trip to the state or regional library center, or both
2. Field trip to a historically significant library
3. Attend a local or state meeting of a recognized library association, or both

III. School Media Centers

A. Performance Objectives
Upon completion the student should be able to:
1. State the general purposes of school media centers
2. Describe the functions and services of school media centers
3. Outline the typical local school's formal organizational structure in relation to its media center
4. Describe and diagram the management structure of a local school media center to include a possible career ladder

B. Units of Instruction
1. Purposes of school media centers
a. Provide support materials for the curricula, enrichment materials for students and faculty; and, materials for faculty teaching improvement
b. Provide an organized means to distribute the center's materials to faculty and students
c. Provide a place in which students and faculty may engage in independent study and enjoy the center's materials
d. Provide assistance and guidance to students in reading, listening, and viewing activities

2. Functions and services of school media centers
a. Formal
(1) Reference
(2) Circulation
(3) Maintenance of collections
(a) Repair
(b) Binding
(c) Shelving and replacement materials
(4) Selection and acquisition of media
(5) Technical processing of new materials
(6) Reader's advisory
b. Informal
(1) Meeting room for students, faculty and staff
(2) Lounge area for students
(3) Service to community residents

3. School organizational structure
4. Management structure of school media centers
a. Librarians
b. Coordinator of media services
c. Media specialists
d. Library and media technical assistants
e. Clerk-typists
f. Student assistants

5. Physical environment of school media centers
a. Public service areas
b. Media distribution areas
c. Media production areas
d. Technical processing areas
e. Conference and faculty areas

C. Laboratory
1. Field trip to a nearby district school library or media center
2. Field trip to an elementary or middle school library/media center
3. Study and give a written evaluation of floor plans for a large district school library/media center in terms of stack and storage areas, reading and study areas, processing areas, public service

areas, reference areas, and media production and service areas
4. Given a set of guidelines, develop a student handbook to include services of the school library/media center; orientation to use of the center; and, regulations governing use of the materials in the center
5. Given a set of guidelines, develop a handbook for student assistants to include responsibilities to the library/media center and the clientele it serves

IV. Special Libraries

A. Performance Objectives
Upon completion the student should be able to:
1. State the general purposes of special libraries
2. Identify types of special libraries
3. Describe the usual functions and services of special libraries, e.g. bibliographic search, data retrieval, microform acquisitions, media distribution
4. Describe the special library's role in various organizational structures, e.g. government, corporate and association
5. Describe the usual management structure of special libraries, to include a possible career ladder

B. Units of Instruction
1. Purposes
   a. Provide such library materials as would further the endeavors of the organization
   b. Provide an organized, efficient means of disseminating the materials and data as needed by the organization
   c. Provide a place in which the organization's personnel may study and research
2. Types of special libraries
   a. Business and corporate
   b. Scientific and technical
   c. Medical
   d. Archival and depository
   e. Fine arts
   f. Law
   g. Governmental
   h. Historical
3. Functions and services
   a. Literature searching
   b. Information storage and retrieval
   c. Materials selection and acquisitions
   d. Technical processing
   e. Circulation and dissemination
   f. Reference services
4. Library within the corporate organization's structure
5. Special libraries as separate entities
   a. Association sponsored
   b. Government sponsored
6. Management structure of special libraries
   a. Director
   b. Departments
      (1) Bibliographic and reference
      (2) Acquisitions and technical processing
      (3) Circulation and distribution
   c. Personnel
      (1) Librarians
      (2) Bibliographers
      (3) Media specialists
      (4) Library technicians
      (5) Clerk-typists
7. Physical environment
   a. Bibliographic and reference areas
   b. Technical processing areas
   c. Media production areas
   d. Circulation and media distribution areas

C. Laboratory
1. Field trip to a business or corporate library
2. Field trip to a medical or law library
3. Field trip to a governmental library or another selected special library
4. Sketch a floor plan for a selected special library

V. Public Libraries

A. Performance Objectives
Upon completion the student should be able to:
1. State the general purposes of public libraries
2. Describe the usual functions and services of public libraries, e.g. reference, story telling, film and phonorecord circulation, book selection and acquisition, book circulation, cataloging and processing
3. Describe the general management structure of public libraries to include a possible career ladder
4. Describe the usual relationship of public libraries to the local governing organizational structure

B. Units of Instruction
1. Purposes

a. Provide library materials for the enlightenment and enjoyment of the people in a community
b. Provide an organized, efficient means of access and retrieval of the library's materials for the community
c. Provide a place in which the public may, in reasonable comfort, study and enjoy the materials and services of the library
d. Provide specialized services to the handicapped, homebound, institutionalized and disadvantaged

2. Functions and services
a. Technical processing
b. Circulation and distribution services
c. Reader services
d. Public services
e. Media services
f. Social services
g. Public relations and display services

3. The library in the government organizational structure

4. Management structure
a. Governing board of library
b. Chief administrator of library
c. Divisional or departmental heads, or both
d. Section supervisors
e. Staff (professional and non-professional)

5. Physical environment
a. Public service areas
b. Technical processing areas
c. Media presentation areas
d. Administration areas
e. Distribution units (bookmobiles, etc.)

C. Laboratory

1. Field trip to a large, urban public library which is highly departmentalized
2. Field trip to a small, suburban public library
3. Diagram a floor plan for a small public library
4. Assist a librarian engaged in serving a special group of patrons; i.e., homebound, bookmobile, institutionalized, disadvantaged, handicapped
5. Given specific guidelines, develop a patron guide to the use of the library, services provided by the library and regulations governing the use of the library collections

VI. Academic Libraries

A. Performance Objectives
Upon completion the student should be able to:
1. State the general purposes of academic libraries
2. Describe the usual functions and services of academic libraries, e.g. reference, book selection and acquisitions cataloging and processing, documents collection, book and newer media circulation
3. Describe the general management structure of an academic library to include a possible career ladder
4. Describe various hierarchal relationships between the library and the academic institution's administration
5. Describe a variety of academic libraries by type of clientele served; e.g. liberal arts college, university, community college, technical institutute

B. Units of Instruction
1. Purposes
a. Provide library materials for the support of the curricula, cultural enrichment of students and faculty, and support for graduate and faculty research
b. Provide an organized and efficient means of access to the library's materials for the academic community
c. Provide a place in which the academic community, with reasonable comfort, may study and enjoy the library's materials and services

2. Types
a. Undergraduate
(1) Four-year central library
(2) Departmental library
(3) Junior and technical-vocational, post-secondary libraries
b. Graduate
(1) Central graduate library
(2) Departmental
c. Comprehensive

3. Functions and services
a. Selection and acquisition
b. Technical processing
c. Circulation and distribution
d. Media production
e. Reference—bibliographia

4. The library in the academic administrative structure

5. Management structure
a. Head of library
b. Divisional or departmental heads,

or both
c. Section supervisors
d. Staff
e. Line-staff relationships
6. Physical environment
a. Public service areas
b. Technical processing areas
c. Media production service areas
d. Administrative areas

C. Laboratory
1. Field trip to a post-secondary school library other than the parent institution
2. Diagram a floor plan for a small, post-secondary library
3. Given specific guidelines, develop a student handbook listing the services and regulations governing the use of the library and providing orientation to the library
4. Develop a handbook for student assistants defining their responsibilities to the institution and the clientele it serves

Texts and References

AMERICAN ASSOCIATION OF SCHOOL LIBRARIANS. *Standards for School Media Programs.*

AMERICAN LIBRARY ASSOCIATION. *Interim Standards for Small Public Libraries: Guidelines Toward Achieving the Goals of Public Library Service.*

AMERICAN LIBRARY ASSOCIATION. *Minimum Standards for Public Library Systems.*

AMERICAN LIBRARY ASSOCIATION. *Personnel Organization and Procedure: A Manual Suggested for Use in Public Libraries.*

AMERICAN LIBRARY ASSOCIATION. *Standards for College Libraries.*

AMERICAN LIBRARY ASSOCIATION. *Standards for Library Functions at the State Level.*

DYER. *Role of School Libraries in Education.*

GATES. *Introduction to Librarianship.*

HICKS and TILLIN. *Developing Multi-media Libraries.*

JOHNSON. *History of Libraries in the Western World.*

KNIGHT and NOURSE. *Libraries at Large: Tradition, Innovation, and the National Interest; The Resource Book Based on the Materials of the National Advisory Commission on Libraries.*

LOWRIE. *Elementary School Libraries.*

NATIONAL EDUCATION ASSOCIATION. *School Library Personnel Task Analysis Survey.*

SAUNDERS. *Modern School Library: Its Administration as a Materials Center.*

SHERA. *Libraries and the Organization of Knowledge.*

SINCLAIR. *Administration of the Small Public Library.*

STRAUSS and OTHERS. *Scientific and Technical Libraries: Their Organization and Administration.*

SWARTHOUT. *School Library as Part of the Instructional System.*

THOMPSON. *Introduction to University Library Administration.*

Related Media

Association Films, Inc., 600 Madison Avenue, New York, N.Y. 10022.

University Library. 27 min., 16 mm., sd., color, no date.
Summary: Explores the massive collection of treasures that together form the Yale Library—from manuscripts, both ancient and modern, to journals, diaries, maps and printed works of every age and faculty of study.

Atlantic Productions, Inc., 894 Sheffield Pl., Thousand Oaks, Calif. 91360.

Elementary School Library. 80 frames, color, no date.
Summary: Indicates the many types of material found in a school library and shows how to use them.

BroDart Industries, Newark, N.J.

Library Is. 15 min., 16 mm., sd., color, 1968.

McGraw-Hill Textfilms, 335 W. 42nd St., New York, N.Y. 10036.

College Library—A Series. 6 filmstrips, color, 1966.
Contents:
Classification and the Card Catalog ... 43 frames
Dictionaries ... 40 frames
Indexes ... 39 frames
Introduction to the College Library ... 37 frames
Reference Materials ... 39 frames
Using Library Resources for a Research Paper ... 39 frames
Summary: Describes the materials available in the college library, their organization and arrangement, and their usefulness for specific purposes. Designed to develop skill in locating, selecting, using and describing these materials.

Smithsonian Institution A-V Services, Washington, D.C. (Producer); American Library Association, Chicago, Ill., (Distributor)

At the Center. 29 min., 16 mm., sd., color, 1970.
Summary: Depicts the career of a librarian in a school media center. Librarians discuss their interests and satisfactions as media specialists in a wide range of schools.

Virginia Department of Education, 523 Main St., Richmond, Va. 23219.

Fortunate Ones. 13 min., 16 mm., sd., color, 1965.
Summary: Looks at the modern school library. Illustrates the many facilities and emphasizes the benefits that can be derived by both students and teachers. Surveys the interrelationships of the librarian and the teacher.

Wing Productions, Inc., 252 Great Rd., Bedford, Mass. 01730.

Fifth Freedom. 16 min., 16 mm., sd., color, no date.
Summary: This story of a little girl who wanders into a small town library is used to demonstrate adequate library service and the importance of a highly trained professional staff and a good collection of books.

INTRODUCTION TO
TECHNOLOGICAL MEDIA

Hours Per Week

Class, 2; Laboratory, 6

Description

In this course the student is introduced to the entire range of technological media. The characteristics, advantages and limitations of different types of equipment and materials are examined. The role and function of the technician to support the management, maintenance and user services of the media are emphasized.

Basic information and fundamental principles are presented in class lectures, demonstrations and mediated instruction. Laboratory activities provide skill training and experience in the operation and minor repair of equipment and the maintenance and repair of materials. Students gain first hand information about the activities and services provided by different types of libraries and media centers through field trips to local facilities.

Class assignments, outside assignments and laboratory activities should be closely coordinated. Assignments and activities should require extensive student use of available media facilities and services.

Major Divisions

	Hours	
	Class	Laboratory
I. The Library as a Resource Center	2	9
II. Technological Media	6	9
III. Media Equipment	4	18
IV. Environmental Variables	2	6
V. Media Materials	8	18
VI. Technical Processing of Medial Materials and Equipment	6	24
VII. Scheduling and Distribution of Media Materials and Equipment	4	12
Total	32	96

I. The Library as a Resource Center

A. Performance Objectives
Upon completion the student should be able to:
1. Describe and compare, in writing, the technological media services provided by a school library, a public library and a special library
2. List typical tasks performed by the library technician for implementing media services in the areas of technical processing, user services and local production
3. Visit a local library media center and draw a layout of the center, labeling the following facilities according to their respective functions
   a. Administrative section
   b. Materials collection area
   c. Equipment and materials distribution section
   d. Equipment storage section
   e. Equipment maintenance section
   f. Materials maintenance section
   g. Graphic section
   h. Recording area
   i. Special working and training area
   j. Other special areas

B. Units of Instruction
1. Variety and extent of technological media services provided by different types of libraries
   a. School or academic
   b. Public
   c. Special
2. Role and functions of the technician in implementing media services
   a. Technical processing
   b. User services
   c. Local production
3. Special areas and facilities in the library for user utilization of media materials
4. Special areas in the library for care and handling of media equipment and materials
5. Special areas in the library for local production of technological media materials

C. Laboratory
1. Field trip to school library or media center
2. Field trip to limited service library or media center
3. Draw a layout and design of a media center

II. Technological Media

A. Performance Objectives
Upon completion the student should be able to:
1. Given a list of basic technological media terms and a list of definitions, match each term with the correct definition
2. Given a list of various types of media, locate a specific example of each in a local media center

B. Units of Instruction
1. Basic technological media terminology
2. Overview
   a. Flat pictures
   b. Three-dimensional materials
   c. Displays and exhibits
   d. Audio
   e. Still projection
   f. Motion projection
   g. Television
   h. Multi-media
   i. Programmed instruction and teaching machines
   j. Games and simulation
   k. Computer assisted instruction

C. Laboratory
1. Field trips to local media centers
2. Locate examples of different types of media

III. Media Equipment

A. Performance Objectives
Upon completion the student should be able to:
1. For any given piece of media equipment, identify the basic machine parts and controls, and describe the function of each
2. Set up and demonstrate the operation of the following types of media equipment; motion picture projectors, slide and filmstrip projectors or viewers, opaque and overhead projectors, tape recorders and record players
3. Set up and demonstrate the use and operation of the following auxiliary equipment; projection screens, microphones, sound synchronizer and motion adaptors
4. List examples of less common types of equipment
5. For a given piece of equipment describe the procedures necessary to maintain the equipment in good operating order
6. For a given piece of equipment list the minor repair operations that can be performed by the technician
7. For a given piece of equipment needing repair, perform the necessary operations to restore to good working order

B. Units of Instruction
1. Demonstration of the operation of common types of equipment and the materials to be used with each type
   a. Basic machine parts
   b. Machine controls and functions
2. Demonstration of the use of auxiliary equipment such as projection screens, microphones, dissolve unit, sound synchronizer and motion adapters
3. Audiovisual presentations of examples of less common types of equipment
4. Advantages and limitations of different types of equipment
   a. Relative cost
   b. Ease of maintenance
   c. Ease of operation
5. Demonstration of routine care and minor maintenance of media equipment
6. Sources of equipment

C. Laboratory
1. Locate basic machine parts and controls and describe their functions
2. Self-instructional lab practice in the operation of common types of equipment
   a. 16 mm. sound motion picture projectors
   b. 8 mm. motion picture projectors sound and silent—standard 8 mm. and super 8 mm.
      (1) Cartridge load
      (2) Reel to reel
   c. Slide projectors or viewers
   d. Overhead projectors
   e. Opaque projectors
   f. Filmstrip projectors or viewers
   g. Tape recorders
   h. Record players
3. Practice in the set-up and operation of auxiliary equipment
   a. Microphones
   b. Sound synchronizers
   c. Motion adapters
4. Practice in preventive maintenance and minor repair operations

IV. Environmental Variables

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the factors that must be considered in determining suitability of any given room facility for audiovisual presentations
2. List and compare the variables to be considered for utilization of audiovisual equipment for large groups
3. Given a specified user requirement and a suitable room facility, set up and operate the necessary equipment, demonstrating effective consideration of physical conditions

B. Units of Instruction
1. Room facilities
   a. Size
   b. Shape
   c. Intended use
      (1) Large group
      (2) Small group
      (3) Individual
   d. Equipment
      (1) Fixed
      (2) Portable
2. Physical conditions
   a. Temperature
   b. Ventilation
   c. Light control
   d. Acoustical control

C. Laboratory
1. Devise a plan indicating required physical facilities and equipment for a variety of given user requirements
2. Set up the facilities, equipment and conditions for a large group, small group and individual presentation

V. Media Materials

A. Performance Objectives
Upon completion the student should be able to:
1. List and describe the characteristics of any given type of media material
2. Given a list of the various types of media materials compare primary advantages and limitations of each
3. Given various media materials, demonstrate proper handling and care preceding, during and following utilization
4. Following a film showing, inspect, clean and repair film footage
5. Given a list of media materials, describe procedure for preventive maintenance of each
6. Demonstrate the procedures for cleaning and repairing tapes
7. Given appropriate samples of flat, projected and non-projected media materials, demonstrate the procedures for cleaning and repair
8. Describe the maintenance requirements and the process of cleaning phonodiscs

B. Units of Instruction
1. Characteristics
   a. Flat opaque pictures, photographs, study prints, charts, posters, art prints and graphs
   b. Still projection materials – photographic slides, overhead transparencies, filmstrips and microforms
   c. Motion projection materials – 16mm. films, sound and silent, 8 mm. films, sound and silent, and videotapes
   d. Audio materials – phonodiscs and tapes
   e. Three-dimensional materials – globes, realia, models, displays, mock-ups and exhibits
   f. Programmed instructional materials
   g. Games and simulation materials
   h. Multi-media materials – all materials that are combinations of media
2. Advantages and limitations of types of media
   a. Relative costs
   b. Ease of maintenance
   c. Durability
   d. Frequency of use
3. Routine care and minor maintenance of media materials

C. Laboratory
1. Practice presentations demonstrating efficient and effective utilization of materials with appropriate equipment
2. Practice in the proper care and handling of materials during utilization
3. Maintenance and repair of materials
   a. Film inspection, cleaning and repair
   b. Magnetic tape cleaning and repair
   c. Cleaning and repair of flat projection materials
   d. Phonodisc cleaning and maintenance

VI. Technical Processing of Media Materials and Equipment

A. Performance Objectives
Upon completion the student should be able to:
1. List several major sources of materials and equipment
2. Using appropriate catalogs and indexes, list one example of each type of media material available for a given topic and include all information necessary for ordering
3. Process specified materials for shelving and distribution
4. Prepare a written plan for inventory control of a selected collection; include a sample of the necessary record form

B. Units of Instruction
1. Acquisition procedures
   a. Sources of media materials and equipment
      (1) Purchase
      (2) Rental
      (3) Free and free loan
   b. Ordering and receiving procedures
      (1) In-house record checking
      (2) Bibliographic searching
      (3) Preparation of order forms
      (4) Receiving and collating of materials and maintenance of order files
2. Organization procedures
   a. Cataloging procedures
   b. Physical preparation of materials
   c. Commercial processing sources and services
   d. Maintenance of public media catalog
   e. Inventory control methods

C. Laboratory
1. Compile a list of the major sources of materials and equipment
2. Locate specific materials using major sources
3. Search in-house files, compile bibliographic information and prepare order forms for these materials
4. Catalog a variety of media materials
5. Process materials for shelving and distribution

VII. Scheduling and Distribution of Media Materials and Equipment

A. Performance Objectives
Upon completion the student should be able to:
1. Implement and follow a plan for scheduling and distribution of media materials and equipment for a specified media center
2. Select from available samples or devise original forms to be used for scheduling materials equipment
3. Given the dimensions of a media facility and an inventory list of materials and equipment, sketch a layout showing shelving and storage arrangements and facilities
4. Prepare original record forms or select forms from available examples that indicate circulation statistics for materials and equipment in a media center

B. Units of Instruction
1. Scheduling
2. Storage
3. Inventory maintenance
4. Statistical record keeping
5. Replacement policies

C. Laboratory
1. Devise a plan for efficient scheduling and distribution of media materials and equipment
2. Detail a plan showing the shelving and storage facilities for media materials and equipment in a library or media center
3. Examine available record forms or prepare original forms which indicate circulation statistics for a selected collection of materials and equipment in a media center

Texts and References

ASSOCIATION FOR EDUCATIONAL COMMUNICATION AND TECHNOLOGY. *Standards for Cataloging Non Print Materials. Revised Edition.*

BROWN, LEWIS *and* HARCLEROAD. *AV Instruction: Media and Methods.*

BROWN *and* NORBERG. *Administering Educational Media.*

DALE. *Audovisual Methods in Teaching.*

DAVIS. *Instructional Materials Center. An Annotated Bibliography.*

ERICKSON. *Administering Instructional Media Programs.*

ERICKSON. *Fundamentals of Teaching with Audiovisual Technology.*

GERLACH *and* ELY. *Teaching and Media.*

GREEN. *Educational Facilities with New Media.*

HICKS *and* TILLIN. *Developing Multi-Media Libraries.*

WITTICH *and* SCHULLER. *Audiovisual Materials: Their Nature and Use.*

Related Media

Atlantis Productions, Inc., 1252 LaGranada Drive, Thousand Oaks, Calif. 91360.
Elementary School Library. 26 min. 16 mm., sd., color, 1962.

Basic Skill Films, 1355 Inverness Drive, Pasadena, Calif. 91103.
The Language Laboratory. 35 mm., 52 frames, color, 1966.
Summary: This filmstrip illustrates different language lab systems and lists their advantages.

Baily Films, Inc., 6509 DeLongpre Ave., Hollywood, Calif. 90028.

Bulletin Boards and Display. 33 mm., 36 frames, color, 1966.
Summary: Amusing drawings and examples of good bulletin board design show how the bulletin board can be made to function as an effective educational tool. Shows background material and fastening devices and illustrates layouts.

How to Splice a Film. 35 mm., 38 frames, color, 1961.
Summary: Shows the composition of film and the function of film cement. Demonstrates handling of film on rewinds, locating the emulsion side and splicing.

Campus Film Distributors (Productions), 20 E. 46th St., New York, N.Y. 10017.

Setting Up a Room: Creating an Environment for Learning. 24 min., 16 mm., sd., color, 1967.

Coronet Instructional Films, 65 E. So. Water St., Chicago, Ill. 60601.

Nature of Sound. 11 min., 16 mm., sd., b & w., 1961.
Summary: Presents various media which transmit sound. Nature of sound is demonstrated via amateur radio equipment.

Colonial Films, Inc., 70 Farlie St., N.W., Atlanta, Georgia 30303.

Looking at Visual Aids. 12 min., 35 mm., sd., color, 1966.
Summary: Introduces the reasons for and techniques of using visual aids. Presents the learners' view.

Chandler Publishing Co., 124 Spear St., San Francisco, Calif. 94105.

Splicing Magnetic Tape. 2 min., 8 mm., cartridge, color, 1965.
Summary: Shows method of splicing tape with scissors, metal block, or razor blade.

Pictures for Teaching. 36-frame slide set, color, 1965.
Summary: Shows sources of pictures, criteria for picture selection, filing methods, uses and examples of mounted pictures.

Opaque Projector. 3 min., 8 mm., cartridge, color, 1965.
Summary: Illustrates the use of the opaque projector.

DuKane Corporation, Audio Visual Division, St. Charles, Ill. 60174.

The Sound Filmstrip System. 35 mm., filmstrip, sd., color, 1966.
Summary: Demonstrates the use of disc-filmstrip equipment and materials.

DuArt Film Labs, Inc., U.S. Govt. Film Services, 245 W. 55th St., New York, N.Y. 10019.

The 8 MM Film in Education: Its Emerging Role. 25 min., 16 mm., sd., color.
Summary: Shows film being used for diverse educational tasks in such subjects as botany, orchestra direction, preparation of visual aids, lipreading, handwriting and electrical engineering.

Teaching Machines and Programmed Learning. 29 min., 16 mm., sd., b & w, 1961.
Summary: Initiates the novice educator into the field of mechanized learning and offers a first lesson in teaching machines and programmed learning. B. F. Skinner, Arthur Lumsdaine and Robert Glaser present theories, materials and machines directly related to programmed learning.

A Probing Mind. 28 min., 16 mm., sd., b & w., 1962.
Summary: Illustrates the uses of audiovisual materials and well equipped laboratories in teaching high school science.

Encyclopaedia Britannica Educational Corp., 425 North Michigan Ave., Chicago, Ill. 60611.

Project Discovery. 28 min., 16 mm., sd., color, 1965.

Summary: Illustrates an innovative research experiment conducted in several schools provided with all required audiovisual materials and equipment.

Indiana University, Audiovisual Center, Bloomington, Ind. 47401.

What's In a Library? 30 min., 16 mm., sd., color, 1966.

International Film Bureau, 332 S. Michigan Ave., Chicago, Ill. 60604.

Facts About Projection. 17 min., 16 mm., sd., color, 1963.
Summary: Discusses advance preparation for classroom showing of 16 mm. films and the need for pretesting the projector. Demonstrates several methods for improving projection and illustrates operational routines for beginning and ending the showing.

Facts About Films. 13 min., 16 mm., sd., color, 1963.
Summary: Concerns film, essence, repair, maintenance and utilizers. Deals primarily with splicing and storing films and curing 16 mm. sound film.

McGraw-Hill Book Company, Text Films Dept., 330 W. 42nd St., New York, N.Y. 10036.

Exciting Bulletin Boards. 35 mm., Parts 1 and 2, 40 frames, sd., color, 1963.
Summary: Treats color, lettering, and two- and three-dimensional bulletin board materials.

Television. 24 min., 16 mm., sd., b & w., 1968.

National Education Association, 1201 16 St., N.W., Washington, D.C. 20036.

What Are Teaching Machines? 29 min., 16 mm., b & w., 1961.

OFM Productions, 1229 Santee St., Los Angeles, Calif. 90015.

Elements of the Film. 28 min., 16 mm., sd., color, 1966.

TECHNICAL PROCESSES I

Hours Per Week

Class, 2; Laboratory, 6

Description

A general approach to the organization and functions of an acquisitions center of a library, this course deals with all those processes of acquisitions that are common to most libraries regardless of type.

Organization of the work will be shown through the use of charts which will examine each function performed, the personnel required to perform the function, and the relevant bibliographic tools required for the identification of materials to be acquired. Class activities will include lecture, discussion and demonstration, followed by direct observation of functions and procedures in public libraries, county systems, school systems and college and university centers. If at all possible, this observation should include a state library function as this is likely to reveal special problems connected with contract and centralized buying.

Computerized application of the functions covered in "Technical Processes I" is a significant part of this course and is given special attention as traditional techniques are compared with the newer automated procedures.

Major Divisions

	Hours	
	Class	Laboratory
I. Orientation and Definition of Terms	2	
II. Organization of Acquisitions Systems	4	6
III. Acquisition Procedures	10	30
IV. Maintenance of Order Files	4	12
V. Receiving of Materials	4	12
VI. Mending and Binding	4	12
VII. Miscellaneous	4	12
Total	32	84

I. Orientation and Definition of Terms

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the function of a technical processes department
2. Make an outline of the purposes and objectives of the functions
3. Define his contribution as a library technical assistant to the functions of the department
4. Use a special vocabulary

B. Units of Instruction
1. Outline of course, class procedure, method of evaluation and general orientation
2. Definition of technical processes
   a. Purpose and objectives
   b. Vocabulary
3. Role of the library technical assistant in technical processes

C. Laboratory (none)

II. Organization of Acquisitions Systems

A. Performance Objectives
Upon completion the student should be able to:
1. Make a comparison of the ordering departments of several types of libraries and cite differences and note similarities
2. Differentiate between several types of forms used by different libraries
3. Build vocabulary

B. Units of Instruction
1. Ordering departments
   a. School libraries
   b. College and university libraries
   c. Public libraries
   d. Special libraries
2. Combined technical services systems

C. Laboratory
1. On site observation of the school's technical processes center in order to become familiar with its location and organization
2. Collect forms used in the center for study and completion at a later period

III. Acquisition Procedures

A. Performance Objectives
Upon completion the student should be able to:
1. Identify all parts of a printed request form
2. Complete several types of forms
3. Assess, route, file or discard publishers catalogs lists

4. Extract information needed to identify and order materials from several types of bibliographic tools
5. Prepare an order to be sent to publisher or agent
6. Prepare source data sheets for the computer center
7. Order Library of Congress or Wilson cards

B. Units of Instruction
1. Requests: printed forms
   a. School libraries
   b. Public libraries
   c. College and university libraries
   d. Special libraries
2. Publishers' catalogs and lists
   a. General publishers
   b. Special publishers
   c. Jobbers
   d. Disposition of catalogs
      (1) Routine
      (2) Filing
      (3) Discarding
3. Bibliographic tools
   a. *Books in Print and Subject Guide to Books in Print*
   b. *Cumulative Book Index*
   c. *Book List*
   d. *Publisher's Weekly*
   e. *Choice*
   f. *Library Journal*
   g. Children's catalogs – junior high school, senior high school
   h. *Paperback Books in Print*
   i. *Textbooks in Print*
   j. *Forthcoming Books*
   k. *National Union Catalog*
   l. *Publishers' Trade List Annual*
   m. *Audiovisual Market Place*
4. Bibliographic search
   a. Duplications
      (1) Check catalog
      (2) On order
      (3) In process
      (4) Request file
   b. New requests
      Check appropriate bibliographic tools that may be of special use to the particular library in question
5. Preparation of orders
   a. Typing orders
      (1) Multiple order forms
      (2) Machine forms
      (3) Preparation and completion of source data for computer center
   b. Initiating orders for book cards
      (1) LC cards
      (2) Wilson cards
      (3) Other

C. Laboratory
1. Study a variety of printed request forms and complete the study by filling out each form
2. Prepare the data that a computer center would need for preparation of lists
3. Examine the bibliographic tools mentioned in the outline and identify the exact information needed to order the material
4. Prepare an order for 10 titles that have been verified in bibliographic tools mentioned in the outline
5. Find a film, a filmstrip, a record and a tape that can be used in a central collection; identify each and type the order

IV. Maintenance of Order Files

A. Performance Objectives
Upon completion the student should be able to:
1. Establish outstanding order files by
   a. Author
   b. Title
   c. Purchase order
   d. Vendor
   e. Computer print out
2. Establish and maintain purchase order files
3. Establish and maintain correspondence files

B. Units of Instruction
1. Outstanding order files
   a. Author
   b. Title
   c. Purchase order
   d. Vendor
   e. Computer print out
2. Purchasing files
   a. Files by data
   b. Files by order number
   c. Files by vendor
   d. Claims ordered
   e. Claims sent
   f. Out of print or out of stock
   g. No longer available
   h. Wanter
3. Correspondence files
   a. Requests for free and inexpensive materials
   b. Follow-up on materials not received
   c. Acknowledgment of gifts

C. Laboratory
1. Set up various types of files
2. Check files for requested information and outline the procedures to be followed in checking and rechecking, and maintaining files

V. Receiving of Materials

A. Performance Objectives
Upon completion the student should be able to:
1. Check incoming materials against order files
2. Check incoming materials for changes or errors
3. Match catalog cards with materials they represent
4. Stamp materials with ownership mark

B. Units of Instruction
1. Routines
a. Checking shipping lists against materials received
(1) Government documents
(2) Serials
(3) Pamphlets
(4) Audiovisuals
b. Clearing outstanding order files
c. Matching catalog cards received with materials
d. Stamping for identification and ownership

C. Laboratory
1. Each student is assigned to the college acquisitions center where he observes and participates in each of the above activities
2. Students will devise a work-flow chart for the above procedures

VI. Mending and Binding

A. Performance Objectives
Upon completion the student should be able to:
1. Identify and use equipment for simple mends and reinforcement
2. Follow the prescribed procedure when books are selected to go to a commercial binder
3. Reinforce magazines
4. Clean covers and pages of books
5. Use pamphlet binders to secure ephemeral materials
6. Tip in loose pages
7. Repair simple tears

B. Units of Instruction
1. Equipment
2. Library style binding and mending
3. Lettering
4. Procedure when books are sent to commercial binder
5. Reinforcement of magazines
6. Use of pamphlet binders

C. Laboratory
1. Repair simple tears
2. Tip in loose pages
3. Clean pages and covers
4. Repair a book cover

VII. Miscellaneous

A. Performance Objectives
Upon completion the student should be able to:
1. Take inventory following the prescribed routine
2. Complete donor cards and send acknowledgments for any gifts received
3. Prepare lists of exchanges and circulate according to directions
4. Check value of exchange items according to directions
5. Prepare the necessary forms for exchange items
6. Complete interlibrary loan forms and expedite according to directions

B. Units of Instruction
1. Inventory
2. Gifts
3. Exchanges
4. Interlibrary loans

C. Laboratory
1. Complete request or receipt forms or both, for gift materials
2. Enter information on donor cards by author, title, date, source
3. Check value of exchange items and record
4. Complete two interlibrary loan forms

Texts and References

CHESTER. *Library Skills: The Card Catalog: A Program of Instruction on Using the Library.*

DEMCO EDUCATION CORP. *Mending Guide for Books, Magazines, Pamphlets, Periodicals.*

GAYLORD BROS., INC. *Gaylord's Bookcraft: A Complete Manual on Book Repair.*

LEWIS. *Basic Bookbinding.*

MILLER. *The Vertical File and Its Satellites.*

OFFICE OF THE CHANCELLOR, CALIFORNIA COMMUNITY COLLEGES. *Library Technical Assistant Program: Guidelines and Course Content for Community College Programs.*

PETRU. *The Library: An Introduction for Library Assistants.*
SEELY. *ALA Rules for Filing Catalog Cards.*
SHORES. *The Tex-Tec Syllabi: Courses of Study for Library Technical Assistants Prepared for the Texas State Library.*
WULFEKOETTER. *Acquisition Work: Processes Involved in Building Library Collections.*

TECHNOLOGICAL MEDIA PRODUCTION

Hours Per Week

Class, 2; Laboratory, 6

Description

The purpose of this course is to develop the basic knowledge and skills necessary for the preparation of a wide variety of locally produced media materials. Training is provided in applying the basic principles of graphic design and display, production of projection materials, sound recording and reproduction, and the duplication and copying of print materials.

Class periods are devoted to lecture-demonstrations introducing fundamental principles of design and production, presenting examples of the types of materials to be produced by the students in the laboratory and evaluating student-produced materials. Laboratory assignments require the student to develop representative examples of each type of material. Self-instructional materials should be used as extensively as possible. This allows the student to work independently at his own pace, and frees the instructor to assist individual students with production problems.

The student should be given exact specifications for the finished product that is required for each laboratory assignment and a description of the criteria that will be used to evaluate his effort. High standards of quality and workmanship should be stressed. Students should collect, organize and file examples of materials as well as information sheets and brochures concerning sources of production equipment and materials.

Major Divisions

	Hours	
	Class	Laboratory
I. Introduction	1	1
II. Basic Elements of Graphic Design and Display	3	11
III. Illustrating Aids and Devices	3	9
IV. Mounting and Laminating	3	12
V. Lettering	3	9
VI. Coloring	3	9
VII. Producing Overhead Transparencies	4	12
VIII. Photography	4	12
IX. Recording and Sound Production	4	12
X. Duplicating	4	9
Total	32	96

I. Introduction

A. Performance Objectives
Upon completion the student should be able to:
1. Identify and locate equipment to be used in subsequent assignments in the laboratory
2. Given an assignment, follow the correct procedures for obtaining the required materials

B. Units of Instruction
1. Overview of course objectives, procedures
2. Course requirements

C. Laboratory
1. Orientation to laboratory equipment
2. Procedures for obtaining materials

II. Basic Elements of Graphic Design and Display

A. Performance Objectives
Upon completion the student should be able to:
1. List the seven elements of visual design
2. Given a variety of examples of graphic materials and flat surface displays, evaluate each in terms of the five principles essential to a well-designed layout
3. List several sources of ideas for design and layout
4. Draw a sketch of a layout and design for a flat surface display that incorporates one or more graphic materials

B. Units of Instruction
1. Design and layout principles
   a. Legibility
   b. Simplicity
   c. Unity

d. Balance
e. Emphasis

2. Elements of visual design
   a. Line
   b. Shape
   c. Size
   d. Color
   e. Texture
   f. Space
   g. Background
3. Sources of ideas for design and layout
4. Characteristics of different types of graphics
   a. Graphs
   b. Diagrams
   c. Charts
   d. Posters
   e. Cartoons
   f. Maps
   g. Globes
   h. Flat-surface displays

C. Laboratory
1. Analyze and evaluate the layout and design of a variety of examples of graphic material and flat surface displays
2. Collect and file examples of ideas for design and layout
3. Draw a sketch of a layout and design for a flat surface display (The display materials will be produced in subsequent laboratory sessions)
4. Collect and file examples of different types of graphics

III. Illustrating Aids and Devices

A. Performance Objectives
Upon completion the student should be able to:
1. Identify the major types of drawing equipment by matching the names for the equipment with a list of their descriptions and uses
2. Describe, in writing, the uses of specified enlarging and reducing equipment
3. Produce sample visual enlargements and reductions

B. Units of Instruction
1. Drawing equipment
2. Equipment for enlarging and reducing visuals

C. Laboratory
1. Produce practice drawings using drawing equipment
2. Produce examples of visual enlargements and reductions

IV. Mounting and Laminating

A. Performance Objectives
Upon completion the student should be able to:
1. Demonstrate and describe the process for mounting a picture with rubber cement (the temporary method)
2. Demonstrate and describe the process for mounting a picture with rubber cement (the permanent method)
3. List the four methods of applying wax mounting adhesive (adhesive stick, wax discs, spray aerosol and wax machine)
4. Demonstrate and describe the process for mounting a picture with double-coated adhesive acetate
5. List the materials and equipment required for dry mounting using the dry mount press
6. Describe the procedures for removing bubbles from a mounted picture
7. List the materials and equipment required for mounting a small map or chart on Chartex
8. List three variations possible when cloth mounting large materials
9. List the factors to be considered in deciding whether to mount a map on cloth or cardboard
10. List the steps for mounting a large map or chart on Chartex, if the map or chart is to be folded
11. List the methods in applying cold laminating by hand and by machine
12. Demonstrate the process for laminating a dry mounted picture
13. List two reasons laminating film is used over pictures and other materials
14. Identify the two problems which might occur when laminating, and describe in writing the procedures for correcting them
15. Mount a picture with rubber cement
16. Mount a picture with dry mount tissue on cardboard with a hand iron
17. Mount a picture with dry mount tissue on cardboard using a dry mount press
18. Mount a cut-out picture with dry mount tissue on cardboard
19. Mount a picture crossing two pages with dry mount tissue
20. Mount a small map or chart on Chartex
21. Laminate a dry mounted picture
22. Laminate suitable flat specimen

B. Units of Instruction
1. Cold mounting

a. Rubber cement
b. Wax adhesives
(1) Spray
(2) Machine
c. Double coated adhesives
2. Heat mounting
a. Tissue
(1) Temporary
(2) Permanent
b. Mounting board
c. Cloth (Chartex)
3. Laminating
a. Cold laminating acetate
(1) Hand
(2) Machine
b. Heat machine laminating
(1) Two sides
(2) Dry mounting press
(3) Thermocopy laminating

C. Laboratory
1. Mounting pictures using rubber cement
2. Mounting pictures using a double coated adhesive
3. Mounting pictures using temporary tissue
4. Mounting pictures using permanent tissue
5. Mounting a two-page picture using permanent tissue
6. Mounting a cut-out picture
7. Laminating permanently mounted pictures
8. Laminating suitable flat specimens

V. Lettering

A. Performance Objectives
Upon completion the student should be able to:
1. Describe, in writing, two suggested approaches to alignment of letters and words (layout—Minor 101)
2. List the legibility specifications for lettering projected materials and non-projected materials
3. Given a lettering and printing selection chart (e.g. Minor/Frye 100), indicate in writing the lettering and printing technique suggested for a randomly selected item requiring lettering or print
4. Given examples of each, match the following lettering techniques with their respective examples: typewriter, pre-cut, felt pen, (freehand) stencil, Wrico, photo-composing machine, dry transfer lettering
5. List the kinds of display materials that prepared letters are most useful in making
6. Write a comparison of template lettering guides and prepared letters in regard to specific uses for preparing display and other materials, quality of lettering, time required for lettering and cost of equipment
7. List the reasons for using a variety of color and texture backgrounds for lettering
8. Demonstrate with the felt pen these strokes in lettering a sign:
a. Wide strokes for capitals
b. Narrow strokes for lower case letters
9. Prepare a simple sign with each of the following types of lettering: typewriter, pre-cut, felt pen, stencil, template lettering guides, composing machine and dry transfer
10. Design and produce a graphic display illustrating various lettering techniques

B. Units of Instruction
1. Lettering layout and design
2. Legibility standards
a. Projected material
b. Non-projected material
3. Principles of selecting lettering techniques
4. Lettering techniques
a. Typewriter lettering
b. Pre-cut lettering
c. Felt pen lettering
d. Stencil lettering
e. Template lettering guides
f. Photo-copying machine lettering
5. Backgrounds
a. Color
b. Texture

C. Laboratory
1. Produce examples of signs using each of the following types of lettering: typewriter, pre-cut, felt pen, stencil, template and photocopying machine lettering
2. Design and produce a graphic display illustrating various lettering techniques

VI. Coloring

A. Performance Objectives

Upon completion the student should be able to:

1. Describe, in writing, the coloring and shading techniques which could be used in creating a visual
2. Describe, in writing, the characteristics and uses of transparent liquid colors, spray colors and color-adhesive-backed sheets and tapes
3. Design and produce examples of graphics illustrating the use of liquid colors, spray colors and color adhesive-backed materials
4. Illustrate the various coloring and shading techniques by adding color to an opaque visual enlargement

B. Units of Instruction
   1. Coloring and shading techniques for visuals
   2. Coloring and shading materials
      a. Transparent liquid colors
      b. Spray colors
      c. Color adhesive-backed sheets and tapes

C. Laboratory
   1. Design and produce examples of graphics illustrating the use of transparent liquid colors, spray color and color adhesive-backed materials
   2. Produce examples of use of coloring and shading techniques by adding color to examples of opaque visual enlargements

VII. Producing Overhead Transparencies

A. Performance Objectives

Upon completion the student should be able to:

1. List the types of transparencies that can be produced
2. List and describe the factors to be considered in planning production of transparencies
3. List the methods of producing transparencies and the equipment and materials required for each method
4. Given objectives and content, determine the types of transparencies to be produced
5. Given material to be produced in transparency form, and method of production, prepare appropriate masters
6. Prepare an overhead transparency using each of the following production methods:
   a. Marking pencils and felt pens on clear film
   b. Printed material transferred to heat-sensitive film
   c. Original material transferred to heat-sensitive film
   d. Overlay using heat process
   e. Overlay using diazo process
   f. Opaque covers using diazo process
7. Mount examples of transparencies
8. Given various types of transparencies, demonstrate effective display techniques for each type

B. Units of Instruction
   1. Fundamentals of overhead transparencies
      a. Types of transparencies
         (1) Static
         (2) Overlays
         (3) Opaque covers
         (4) Moving parts
         (5) Simulated motion
      b. Display techniques
         (1) Using a pointer
         (2) Writing on the surface
         (3) Progressively disclosing information
         (4) Using overlays
         (5) Moving parts
         (6) Showing 3-D objects
         (7) Simulating motion
         (8) Combining with other visuals
   2. Planning production
      a. Dimensions of working area
      b. Transparency masters
      c. Materials and equipment
      d. Design and art work
      e. Legibility standards
   3. Methods of production
      a. Materials and equipment
      b. Handmade transparencies
         (1) Drawing or writing on acetate
         (2) Adding color
      c. Heat process
         (1) Printed
         (2) Original
      d. Spirit duplicator
      e. Diazo
   4. Mounting and masking

C. Laboratory
   1. Producing handmade static transparencies; adding color, using felt tip pens, color adhesives, liquid colors and diazo film
   2. Producing transparencies using the heat process
   3. Producing transparencies using the spirit duplicator process
   4. Producing examples of transparencies

using the diazo process; overlays, opaque covers, moving parts
5. Mounting, masking and displaying transparencies

VIII. Photography

A. Performance Objectives
Upon completion the student should be able to:
1. Given a diagram of a camera, label the parts including: f/stop, shutter speed indicator, focus adjustment, depth of field indicator, film advance knob, film rewind control and rewind release
2. Shoot a roll of color slide film with the adjustable 35 mm. camera
3. For a given camera, exposure meter and film, demonstrate the procedure for determining correct exposure
4. List five main principles of picture composition
5. List five main points of lighting to be considered for picture taking
6. Demonstrate the procedure for setting up and copying original and text drawings using the copy stand
7. Given different types of titles, set up and photograph the titles
8. List the steps from camera to drying for processing black-and-white film
9. Using the contact printer and an enlarger, make black-and-white print examples of each
10. Shoot a three-minute, 8 mm. movie with titles and shots outlined on a story board

B. Units of Instruction
1. Camera operation
   a. Accessories
   b. Film
   c. Exposure
2. Fundamentals of taking pictures
   a. Composition
   b. Lighting
3. 8 mm. movie camera
   a. Operation
   b. Story boarding

C. Laboratory
1. Copy original and text drawings
2. Titling
3. Process film and make prints
4. Duplicate photographic material

IX. Recording and Sound Reproduction

A. Performance Objectives
Upon completion the student should be able to:
1. Describe, in writing or orally, with visuals, the principles involved in audio recording
2. Given alternatives, identify equipment necessary for a basic audio recording facility
3. Demonstrate the steps involved in audio tape recording
4. Demonstrate the steps in splicing an audio tape
5. Given a topic, prepare a script for an audio tape which employs an introduction, body and conclusion
6. Collect the music and sound effects necessary for embellishing the script
7. Record and edit an audio tape
8. Duplicate a tape for each of these situations: stereo to stereo, stereo to monaural, monaural to monaural, reel to cassette, cassette to reel, and mass duplication of reels or cassettes
9. Given a tape recorder, record from a phonodisc, radio, audio tape and video tape
10. Demonstrate the procedures for synchronizing a tape with a slide set using a given cassette recorder

B. Units of Instruction
1. Fundamentals of sound recording
2. Recording facilities
3. Recording procedures

C. Laboratory
1. Duplicating tapes
   a. Stereo to monaural
   b. Reel to cassette
   c. Mass duplication
2. Splice audio tape
3. Synchronize tapes with visuals
4. Produce a tape recording
   a. Prepare script
   b. Use music and sound effects
   c. Edit the tape

X. Duplicating

A. Performance Objectives
Upon completion the student should be able to:
1. Given the procedures for each, identify by matching the following duplication methods to their correct procedures: spirit masters, mimeograph, multilith, dry copy and wet copy
2. Describe, in writing, the processes of preparing original materials for duplication

3. List the advantages and limitations of each of the following: spirit masters, mimeograph, multilith, dry copy and wet copy
4. Prepare copy for duplication on each of the following: spirit masters, mimeograph, multilith, dry copy and wet copy
5. Duplicate enough copies for the class on each of the following: spirit masters, mimeograph, multilith, dry copy and wet copy

B. Units of Instruction
1. Basic types of mass print duplication
   a. Spirit masters
   b. Mimeograph
   c. Multilith
   d. Dry copy
   e. Wet copy
2. Preparing original materials for duplication
3. Paste-ups
4. Advantages and limitations of each type of duplicating

C. Laboratory
1. Prepare copy for each type of duplication; spirit master, mimeograph, multilith, dry copy and wet copy
2. Duplicate copy examples

Texts and References

BATHURST *and* KLEIN. *A Visual Communications System.*

BROWN, LEWIS *and* HARCLEROAD. *Audiovisual Instruction: Media and Methods.*

DALE. *Audiovisual Materials in Teaching.*

————. *Designing Instructional Visuals.*

HARTSELL. *Instructional Graphics for Television.*

HAWKEN. *Copying Methods Manual.*

KEMP. *Planning and Producing Audiovisual Materials.*

————. *Local Production Techniques.*

MINOR *and* FRYE. *Techniques for Producing Visual Instructional Media.*

SCUORZO. *Practical Audiovisual Handbook for Teachers.*

UNIVERSITY OF TEXAS. *Better Bulletin Boards.*

————. *Designing Instructional Visuals.*

————. *Educational Displays and Exhibits.*

————. *Instructional Display Boards.*

————. *Lettering Techniques.*

————. *Local Production Techniques.*

————. *Models for Teaching.*

————. *Production of 2" x 2" Slides for School Use.*

————. *The Tape Recorder.*

————. *Using Tear Sheets.*

WITTICH *and* SCHULLER. *Audiovisual Materials: Their Nature and Use.*

Related Media

Association for Educational Communications and Technology, 1201 Sixteenth St., N.W. Washington, D.C. 20036.

The Simple Camera. 35 mm. filmstrip unit, color, manuals, 1971.
Summary: An award-winning teaching tool which covers both basic photographic theory and good picture taking practices.

BFA Educational Media, 2211 Michigan Avenue, Santa Monica, Calif.

Bulletin Boards: An Effective Teaching Device. 16 mm., 11 min., sd., color, 1956.
Summary: Gives suggestions for the planning and organization of creatively designed bulletin boards and presents 12 displays arranged by a class. Shows a class discussion, planning and arranging a bulletin board.

Chalkboards and Flannel Boards. 35 mm., 30 frames each, sd., color, 1967.
Summary: This set of four color filmstrips follows the format of the highly successful set, "Bulletin Boards and Display" and "Flannel Boards and How to Use Them." The care, use and construction of these often overlooked, yet powerful, classroom tools are covered in depth. Examples of various types of boards and materials are shown, as well as many types of presentations on the boards.

Charts for Creative Learning. 10 min., 16 mm., sd., color, 1961.
Summary: Actual school situations dramatize the many uses that can be made of charts in primary, elementary and secondary classrooms.

Creating Cartoons. 11 min., 16 mm., sd., b & w., 1956.
Summary: Uses demonstrations in humorous animation to explain the elements of cartooning.

Duplicating by the Spirit Method. 14 min., 16 mm., sd., color, 1961.
Summary: Carbon master sets are shown and the dye transfer process is illustrated in this demonstration of spirit duplicating (also known as liquid or fluid duplication). Typing the master set, making corrections by various methods, using hand lettering and colored carbons are shown in detail. Close attention is given to each step in operating the machine. Proper care of equipment is stressed.

How to Make Papier-Mache Animals. 12 min., 16 mm., sound, color, 1954.
Summary: Demonstrates the steps involved in making papier-mache animals. Explains how to decorate the animal forms.

Introduction to Drawing Materials. 19 min., 16 mm., sound, color, 1966.
Summary: Introduces various drawing materials, such as chalk, crayons, pencils, tempera, watercolor, felt-tip pens and oil pastels. Stresses the special qualities of each material and the value of experimentation.

Introduction to Gesture Drawing. 12 12 min., 16 mm., sound, color, 1967.
Summary: This film shows and explains that gesture drawing is an exercise that describes motion. It expresses the direction and rhythm of an

action. Practice in this rapid technique will add vigor and life to your other types of artwork. It also will make you aware of the different kinds of motion while helping you to develop skill and spontaneity in expressing those motions.

Introduction to Graphic Design. 35 mm., 50 frames each, sound, color, 1967.
Summary: A basic introduction to the materials and techniques of the graphic artist, covering the materials and tools used in all phases of work from layout to lettering and the basic techniques from ruling to rubber-cementing.

Photography: Close-Ups and Copying with 35 mm. Cameras. 35 mm. filmstrips, sound, color, 1964.
Summary: Graphic color photographs and artwork are combined with efficient narration to motivate the audience and explain how to use a 35 mm. camera in the interesting fielc of close-up and copying photography. Answers the needs of teachers and students who have 35 mm. cameras and who want to photograph close-ups and copy slides. Supplementary materials are included in a manual for those who desire further study.

Eastman Kodak, Audiovisual Service, 343 State Street, Rochester, N.Y. 14650.

How to Plan Your Travel Show. 2- by 2-inch slides (150), sound, color.
Summary: Shows how to produce a sound-slide presentation. Includes instructions on titles, sound, etc.

Keuffel and Esser Co., 20 Whippany Road, Morristown, N.Y. 07960.

Instructional Media. diazo master book, 1969.
Summary: The most extnesive visual instructional media tains masters created mainly to assist professional personnel to teach potential and experienced teachers functions of and techniques for using various types of media. The masters are designed for quick, easy reproduction with diazo color projection films. Included are masters related to the production of visual instructional media.

McGraw-Hill Films, Inc., 330 West 42 Street, New York, N.Y.

McGraw-Hill Films, Inc., 330 West 42nd Street, New York, N.Y.

Cloth Mounting (Fold). 8 mm. SC films, 4 min., silent, b & w., 1965.
Summary: Dry mounting a large map, separated into sections, on Chartex cloth for folding during storage.

Cloth Mounting (Roll). 8 mm. SC film, 4 min., silent, b & w., 1965.
Summary: Dry mounting a large map in one piece on Chartex cloth for rolling during storage.

Dry Mounting (Hand Iron). 8 mm. SC film, 3 min., silent, b & w., 1965.
Summary: Using a hand iron and dry mounting tissue to mount a magazine picture on cardboard.

Dry Mounting (Press). 8 mm. SC film, 3 min., silent, b & w., 1965.
Summary: Using a dry mount press and dry mounting tissue to mount a magazine picture on cardboard.

Educational Media Kit. 1968.
Summary: A carefully developed and integrated series of audio-visual materials (films, slides, transparencies and recordings) designed for use in presenting developments in education which involve many types of instructional resources. This media kit is the culmination of many years of work by outstanding media specialists around the nation and was originally deder contract by San Jose State College with the United States Office of Education.

Exciting Bulletin Boards. 35 mm. filmstrips (2), 40 frames each, sd., color, 1963.
Summary: Shows color, lettering and three-dimensional bulletin board materials.

Lettering: The Felt Pen. 8 mm. SC film, 4 min., silent, color, 1965.
Summary: Results of using felt pens for preparing lettering styles, flash cards, displays, charts and bulletin boards.

Lettering: The Felt Pen. 8 mm. SC film, 4 min., silent, color, 1965. (Basic Skills)
Summary: Characteristics of commonly used felt pens; proper finger, wrist and arm position as pen is used; methods of forming letters; and, proper pen speed during use.

Lettering: Prepared Letters. 8 mm. SC film, 4 min., silent, b & w., 1965.
Summary: Shows using construction-paper cutouts, gum-backed letters and dry transfer letters.

Lettering: Wricoprint. 8 mm. SC film, 2 min., silent, b & w., 1965.
Summary: Using Wricoprint stencil lettering guide and pen for lettering 1/2 inch and smaller.

Lettering: Wrico Signmaker. 8 mm. SC film, 4 min., silent, b & w., 1956.
Summary: Using Wrico Signmaker stencil lettering guide with brush pen and felt pen for lettering 1/2 inch and larger.

Mounting: A Cut-Out Picture. 8 mm. SC film, 3 min., silent, b & w., 1965.
Summary: Dry mounting a picture that requires removal of advertising or other materials from the page around the pictuje.

Mounting: A Two-Page Picture. 8 mm. SC film, 4 min., silent, color, 1965.
Summary: Dry mounting a picture that extends across two separate pages in a magazine.

Mounting: Overcoming Dry Mounting Problems. 8 mm. SC film, 3 min., silent, b & w., 1965.
Summary: Preventing the formation of bubbles when

dry mounting and what to do if they appear after mounting.

Mounting: Setting Grommets. 8 mm. SC film, 2 min., silent, b & w., 1965.
Summary: Setting metal grommets (rings) in a cloth-backed map for ease in displaying.

Mounting: Using Laminating Film. 8 mm. SC film, 4 min., silent, b & w., 1965.
Summary: Dry mounting a mylar film, for protection, over the surface of a mounted picture. Shows other uses for laminating film.

Rubber Cement Mounting. 8 mm. SC film, 4 min., silent, b & w., 1965.
Summary: Using rubber cement on the back of a picture an d on cardboard to mount a magazine picture permanently.

Transparencies: Adding Color. 8 mm. SC film, 3 min., silent, color, 1965.
Summary: Using felt pens, diazo films and transparent color adhesives for coloring areas on transparencies.

Transparencies: Diazo Process. 8 mm. SC film, 3 min., silent, color, 1965.
Summary: Exposing a translucent paper master drawing and a diazo film in a Beseler Vugraph ultraviolet printer and developing the film in a jar containing ammonia vapor.

Transparencies: Handmade Method. 8 mm. SC film, 3 min., silent, color, 1965.
Summary: Using felt pens and transparent marking pencils on clear acetate.

Transparencies: Heat Process. 8 mm. SC film, 2 min., silent, color, 1965.
Summary: Using thermocopy (infrared) projection film to prepare a transparency from an original diagram in the "secretary" model copying machine.

Transparencies: Making Overlays. 8 mm. SC film, 3 min., silent, color, 1965.
Summary: Preparing translucent paper master drawings as a series of overlays from an original sketch with emphasis on use of corner registration marks to ensure alignment of final transparencies.

Transparencies: Mounting and Masking. 8 mm. SC film, 3 min., silent, color, 1965.
Summary: Using tape to mount a single-sheet transparency and one with overlays to a cardboard frame. Shows results of masking and disclosing information on transparencies with a sliding mask and hinged masks.

Transparencies: Principle of Diazo Process. 8 mm. SC film, 4 min., silent, color, 1965.
Summary: Results of four experiments to illustrate the principle of diazo process: (1) developing diazo film without exposure, (2) exposing diazo film to sunlight and developing, (3) partially covering diazo film with paper, exposing and developing, (4) covering diazo film with a diagram on tracing paper, exposing and developing.

3M Company Products Div., 3M Center, St. Paul, Minn.

The Overhead Projector. 16 mm., 27 min., sd., b & w., 1967.
Summary: Details and demonstrated effective classroom use and reinforcement techniques as related to the overhead projector.

University of Iowa Films, Audiovisual Center, Iowa City, Iowa 52240.

Dry Mounting Instructional Materials: Basic Techniques. 16 mm., 5 min., sd., color, 1965.
Summary: Presents the basic dry mounting techniques that involve dry mounting tissue and Fotoflat, shows how these materials are used and the purpose for which each is appropriate, and outlines the techniques of operating dry mounting presses.

Dry Mounting Instructional Mateirals: Cloth Backing. 16 mm., 5 min., sd., color, 1965.
Summary: Shows what Chartex backing cloth is, how it is applied with a dry mounting press and some of the ways it can be used in preparing, presenting and preserving instructional materials. Stresses step-by-step procedures and techniques which will yield good results and long service.

Dry Mounting Instructional Materials: Creative Applications. 16 mm., 7 min., sd., color, 1969.
Summary: This film demonstrates some possibilities for use of the dry mounting press as a creative tool. Useful for basic design courses.

Dry Mounting Instructional Materials: Display and Use. 16 mm., 5 min., sd., color, 1965.
Summary: Illustrates various classroom uses of instructional materials prepared with the dry mounting press.

Dry Mounting Instructional Materials: Laminating and Lifting. 16 mm., 6 min., sd., color, 1965.
Summary: Presents the concept of laminating flat instructional materials with a clear plastic sheet, thereby preserving materials destined for hard use or much handling. A further extension of this technique known as "lifting" (a process whereby full-size transparencies for the overhead are made from printed pages) also is demonstrated. Both techniques are in step-by-step detail.

Dry Mounting Instructional Materials: Special Techniques. 16 mm., 5 min., sd., color, 1965.
Summary: Illustrates special applications and processes utilizing a variety of dry mounting materials and techniques.

Dry Mounting Instructional Materials: Using Ideas. 16 mm., 8 min., sd., color, 1969.
Summary: Shows ways in which the dry mounting process can be put to use in the classroom, once you have mastered the techniques illustrated in the previous films of the series. Suggests the potential of dry-mounted materials as an instructional aid.

READERS' SERVICES

Hours Per Week

Class, 3

Description

This course is oriented toward an acquaintance with basic procedures for working with and assisting clientele in a variety of ways. Techniques for directional and referral service and for assisting readers in the use of public catalogs, general reference materials and audio-visual equipment and materials are emphasized.

General reference tools that students will be expected to become familiar with the use of include encyclopedias, dictionaries, almanacs, indexes, directories, yearbooks, handbooks, atlases, gazetteers, catalogs and bibliographies. A working reference collection should be made available to the student for hands-on instruction and experiences with several types and forms of materials.

Outside classroom assignments should be made with the idea of giving each student optimum experience in familiarization with quick reference materials, community resources and services, and the public service areas of libraries.

Major Divisions

	Hours Class
I. Objectives of Readers' Services	6
II. Readers' Services in Different Types of Libraries	3
III. Types of Readers' Services	9
IV. Methods of Readers' Services	6
V. General Reference Books	18
VI. Other Types of Reference Materials and Tools	9
Total	48

I. Objectives of Readers' Services

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the meaning of service relative to library patrons and the readers' services department of a library
2. Define the concept of etiquette and ethics of service
3. Describe an example of personnel attitude in a good readers' services department
4. Describe the institutional attitude of a library that has a good readers' services department
5. Determine and state a readers' services department's limitation of service, given specific circumstances
6. Design and assemble special displays of materials
7. Prepare reading lists under professional direction

B. Units of Instruction
1. Service concept
   a. Attitude
      (1) Effective communication with users
      (2) Etiquette and ethics of service
      (3) Human relations
   b. Limitations of service
      (1) Materials
      (2) Time
      (3) Appropriateness
   c. Trends
      (1) "Outreach" programs
      (2) Broader spectrum of materials
2. Publicity
   a. Displays and exhibits
   b. Reading lists

II. Readers' Services in Different Types of Libraries

A. Performance Objectives
Upon completion the student should be able to:
1. List the types of readers' assistance which should be provided to students in elementary, secondary and academic libraries
2. Itemize services provided to the faculty of school and academic libraries
3. Describe research services rendered for the benefit of the school or academic institution
4. List readers' services provided for the general clientele of the public library, e.g., children, young adults and adults
5. Describe instructional and recreational services provided for clientele in school and public libraries
6. Describe readers' services of the pub-

lic library as applied to unique requirements of the disadvantaged, handicapped, homebound and institutionalized
7. Describe subject area readers' services provided by public libraries
8. List readers' services expected by clientele of special libraries
9. Describe research services provided for the institution of which the special library is a support operation

B. Units of Instruction
1. School and academic libraries
   a. Students
   b. Faculty
   c. Institutional research and services
   d. Instructional and recreational services
2. Public libraries
   a. General clientele – children, young adults, adults
   b. Special clientele – disadvantaged, handicapped, homebound, institutionalized
   c. Special subject area services
   d. Recreational services
3. Special libraries
   a. Limited clientele interested in a specific discipline
   b. Institutional research and services

III. Types of Readers' Services

A. Performance Objectives
Upon completion the student should be able to:
1. Describe general reference book information service
2. Locate periodicals and periodical article information for library patrons
3. Use the public catalog to provide materials location information for patrons
4. Demonstrate the proper procedure for assisting patrons in the use of the public catalog
5. Give directional assistance to patrons
6. Describe the procedure for referring clients to professional staff for assistance
7. Assist patrons in the use of indexes, encyclopedias, dictionaries, directories, handbooks and bibliographies
8. Assist patrons in the use of audiovisual materials and equipment
9. Locate basic bibliographical information
10. Initiate interlibrary loan requests under a professional librarian's guidance

B. Units of Instruction
1. General reference information
2. Periodical information
3. Public catalog assistance
4. Directional assistance
5. Referral service
6. General indexes use assistance
7. Assistance with audiovisual materials
8. Hardware use assistance
9. Bibliographical assistance
10. Interlibrary loan services

IV. Methods of Readers' Services

A. Performance Objectives
Upon completion the student should be able to:
1. Classify requested service by type of material most likely involved
2. Classify requested service by general subject areas
3. Answer simple reference questions
4. Give a professional librarian as complete and accurate details of a reference question as possible
5. Direct patrons to the library personnel who might best answer their specific questions
6. Describe the kinds of external resources that a person might be referred to for help

B. Units of Instruction
1. Clarifying requester problems by type of material most likely involved
2. Clarifying requester problems by general subject areas
3. Referrals: in-house, external
   a. In person
   b. Telephone and mail assistance

V. General Reference Books

A. Performance Objectives
Upon completion the student should be able to:
demonstrate the use of:
1. General encyclopedias
2. English language dictionaries
3. Word, periodical and book indexes
4. General almanacs and yearbooks
5. Atlases and gazetteers
6. Bibliographies and catalogs
7. Directories
8. Handbooks

9. Biographical tools

B. Units of Instruction
   1. General encyclopedias
   2. English language dictionaries
   3. Indexes
   4. General almanacs and yearbooks
   5. Atlases and gazetteers
   6. Bibliographies and catalogs
   7. Directories
   8. Handbooks
   9. Biographical tools

VI. Other Types of Reference Materials and Tools

A. Performance Objectives

Upon completion the student should be able to:
demonstrate the use of:
1. The public catalog
2. Vertical file materials
3. Flat maps
4. Periodicals
5. Nonprint materials
6. College catalogs
7. Government documents
8. Newspapers
9. Community resources

B. Units of Instruction
   1. Public catalog
   2. Vertical file
   3. Flat maps
   4. Periodicals
   5. Nonprint materials
      a. audio
      b. visual
      c. multimedia
   6. College catalogs
   7. Government documents
   8. Newspapers
   9. Community resources

Texts and References

BARTON AND BELL. *Reference Books, a Brief Guide for Students and Other Users of the Library.*

CHENEY. *Fundamental Reference Sources.*

KATZ. *Introduction to Reference Work:* Vol. I *Basic Information Sources.*

WINCHELL. *Guide to Reference Books, Supplement, 1965-1966.*

————. *Guide to Reference Books, Supplement 2.*

WYNAR, ed. *American Reference Books Annual.*

PUBLIC SERVICE

Hours Per Week

Class, 2; Laboratory, 6

Description

This course is designed to familiarize students with the objectives of public service in all types of libraries. The course content stresses standard routines and application of procedures in public service as well as the various procedures that have been developed to suit libraries of varying size and clientele. This permits students to acquire basic skills and gain sufficient confidence to supervise others in public service routines, and to apply particular procedures to meet changing conditions.

Field trips to libraries with a variety of special public services will provide an opportunity for students to see the techniques presented in the classroom as they are performed in reality. Special projects for each student, involving a study of the needs of special clientele, will reinforce skills learned in this course or in previous library technical courses which require use of basic reference materials or of interviewing.

The instructor will particularly utilize laboratory periods to determine the effectiveness of classroom presentations. These periods will provide necessary feedback and allow the instructor to use varying teaching techniques to either correct learning deficiencies or to further reinforce what has been learned.

Major Divisions

	Hours	
	Class	Laboratory
I. Introduction to Public Service	2	6
II. Circulation and Registration, and Overdue Systems and Procedures	8	24
III. Materials Conservation	2	6
IV. Interlibrary Loan Concept	2	6
V. Reserve Systems and Selective Dissemination of Information	2	6
VI. Orientation and Training	2	6
VII. Interviewing	4	12
VIII. Role of the Library Within		

the Community	2	6
IX. Work with the Disadvantaged	2	6
X. Work with the Handicapped and Homebound	2	6
XI. Work with Institutions	2	6
XII. The Small Public Service Unit Within the System ...	2	6
Total	32	96

I. Introduction to Public Service

A. Performance Objectives
Upon completion the student should be able to:
1. Identify the general range of public services offered by a variety of libraries
2. Identify library areas of service directly involving patron need satisfaction
3. Follow a standard policy manual in daily public service activities
4. Define the procedures through which public service policies are formed
5. Differentiate between general policy and policies established to meet the needs of the special clientele served by a particular library
6. Identify the distinction between technical assistance, professional service and clerical routine relative to public service functions

B. Units of Instruction
1. Range of public service offered by school, public, special and academic libraries to their clientele: inside and outside the institution
2. Range of public service departments within specific types of libraries
3. Primary function of public service in libraries and problems it imposes
4. Role of policy in the formation of public service (policy manuals)
5. Special needs of the city, curriculum, community or region which help to determine the public service program (case studies)
6. Role of the library technical assistant, professional librarian and clerical assistant in public service

C. Laboratory
1. Examination and discussion of library public service policy manuals
2. Field trip to attend a board meeting
3. Selection of a city, community, region, industry or university, and gathering of data which could be used as a basis for determining special public service needs

II. Circulation and Registration, and Overdue Systems and Procedures

A. Performance Objectives
Upon completion the student should be able to:
1. Identify the major kinds of records that must be kept relative to the distribution policies of the library
2. Identify the basic characteristics of the more common charging systems in current use and their applicability to different library situations
3. List the essential elements in a logical and efficient circulation and inventory control system
4. Practice, in a simulated situation, a supervisory role in teaching clerks and other technical assistants how to perform circulation routines

B. Units of Instruction
1. Objectives of control and library record maintenance
2. Fundamental characteristics of charging systems: control, inventory, ease of distribution, cost, accuracy and speed
3. Representative charging systems
   a. Manual
   b. Semi-automated
   c. Automated
4. Inventory procedures

C. Laboratory
1. Discussion and demonstration of selected representative charging systems
2. Field trips to area libraries to see different methods of record maintenance and their effect on the overall library program
3. Simulated training sessions with the students acting as supervisors in training clerical assistants in circulation, registration, overdue and inventory procedures

III. Materials Conservation

A. Performance Objectives
Upon completion the student should be able to:
1. Assess the extent of damage to library

materials to determine whether they will require major or minor repair
2. Outline the operations required for bindery preparation of materials
3. Devise a preventive maintenance program for a collection of library materials

B. Units of Instruction
1. Inspection and preservation principles
a. Print materials
b. Nonprint materials
2. Principles of preventive maintenance
a. Print materials
b. Nonprint materials
3. Standard preparation procedures for the bindery

C. Laboratory
1. Field trip to a book bindery
2. Preventive maintenance of materials

IV. Interlibrary Loan Concept

A. Performance Objectives
Upon completion the student should be able to:
1. Define and explain the principle of extended library service through interlibrary loan
2. Identify the various sources for interlibrary loan of materials — national, regional, state and local — for a given library
3. Describe the function of information and interlibrary loan networks and union catalogs
4. List the factors that govern interlibrary loan procedures
5. Given an interlibrary loan policy for a specified library, list the procedures in the correct sequence for processing an interlibrary loan

B. Units of Instruction
1. Extension of library service
2. Library information and interloan networks
a. Regional interlibrary loan networks
b. State and local interlibrary loans
3. Formal codes and policies governing interlibrary loans
4. Union catalogs and union lists
5. Standard procedures, flow diagrams

C. Laboratory
1. Field trip to a union catalog center
2. Examination and discussion of requests submitted to the center, and an analysis of errors and problems
3. Laboratory preparation of interlibrary loan requests in hypothetical library situations (case problems)

V. Reserve Systems and Selective Dissemination of Information

A. Performance Objectives
Upon completion the student should be able to:
1. Identify the special requirements common charging systems place on reserve systems
2. Devise a procedure for processing reserves to fit a hypothetical library situation
3. Identify what is meant by selective dissemination of information and the procedures necessary to implement this service

B. Units of Instruction
1. Reserve procedures: the effect of charging systems
2. Selective dissemination procedures and applications

C. Laboratory
1. Examination and discussion of several reserve procedures (case problems)
2. Field trip to a library using SDI
3. Laboratory preparation of reserve and SDI procedures for hypothetical library situations (case problems)

VI. Orientation and Training

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the fundamental characteristics of good orientation materials and programs
2. Demonstrate the ability to train others in selected basic library skills in a simulated situation

B. Units of Instruction
1. Fundamental characteristics of good orientation materials and programs
2. Development of an in-service training program

C. Laboratory
1. Examination and discussion of orientation materials
2. Preparation of an orientation program and testing its application through role playing
3. Preparation of charts and printed materials to be used for training student

assistants, pages and other nonprofessional staff

VII. Interviewing

A. Performance Objectives
Upon completion the student should be able to:
1. List standard procedures for satisfying the needs of the clientele for informational services
2. Outline the procedure for effective communication with clientele to determine their specific needs and assist in directing them to appropriate solutions or referring them to other professional staff for assistance
3. Identify the materials and demonstrate a proficiency with hardware used to meet service needs, assist users effectively, and train and supervise other staff
4. Describe what is meant by library etiquette and service responsibility to clientele

B. Units of Instruction
1. Individual appraisal and sensitivity to needs; hazards of stereotyping
2. Question formulation and the purpose of the interview
3. Validity
4. Development of the interview pattern or outline
5. Types of interview
6. General fundamentals of interviewing practice

C. Laboratory
1. Study and discussion of different interview tapes
2. Interview role playing: participation and observation

VIII. Role of the Library Within the Community

A. Performance Objectives
Upon completion the student should be able to:
1. Identify the functions and kinds of services performed by other community service agencies within the typical community
2. Define the role of the library in relation to these other agencies
3. Outline ways in which technical assistants support extended public service activities as a member of the library team both on the job and in the community
4. Identify the ways in which current and future library services can be extended beyond circulation of materials and information distribution in order to more effectively meet individual user and community needs

B. Units of Instruction
1. Other community service agencies and their responsibilities
2. The role of each type of library and its interrelationship with other community service agencies
3. Referral procedures

C. Laboratory
1. Identify different agencies in the community and determine the cooperative role of the library in relation to other agencies: research and interview
2. Group report

IX. Work with the Disadvantaged

A. Performance Objectives
Upon completion the student should be able to:
1. Describe what is meant by the concept of the disadvantaged
2. Describe some of the most common needs of the disadvantaged
3. List the techniques and resources used in working with the disadvantaged and special minority groups

B. Units of Instruction
1. Identification of the disadvantaged: characteristics
2. Specific needs of the disadvantaged
3. Techniques and materials employed by libraries in serving these individuals and satisfying their special needs

C. Laboratory
1. Field trip to observe a program for the disadvantaged
2. Discussion and demonstration of special procedures and techniques employed

X. Work with the Handicapped and Homebound

A. Performance Objectives
Upon completion the student should be able to:
1. List the handicaps most commonly found in our society
2. Describe the special needs of the han-

dicapped relative to library service
3. List the techniques and materials used in work with the handicapped and homebound
4. List the services that Federal, state and local agencies provide to the handicapped through various libraries

B. Units of Instruction
1. Identification of the variety of handicaps
2. Special needs of the clientele
3. Techniques and materials employed by libraries in serving these individuals and their special needs
4. Special services offered by Federal, state and local agencies for the handicapped through libraries

C. Laboratory
1. Field trip to a large library department serving the handicapped or to a regional library for the blind
2. Discussion and demonstration of special procedures and techniques employed

XI. Work with Institutions

A. Performance Objectives
Upon completion the student should be able to:
1. List the various custodial institutions in our society
2. Identify services provided to the institutionalized by various libraries
3. List the techniques and materials used in work with the institutionally confined

B. Units of Instruction
1. Identification of various institutions and library services to the clientele of these institutions: correctional institutions, homes for the aged, detention homes, orphanages, hospitals, rest homes
2. Special needs of the clientele
3. Techniques and materials employed by libraries in serving these individuals

C. Laboratory (none)

XII. The Small Public Service Unit Within the System

A. Performance Objectives
Upon completion the student should be able to:
1. Identify the usual forms of library systems and their functions
2. Outline the special procedures required for the successful operation of bookmobiles, small branch libraries and book stations
3. Develop a procedure for the operation of public service units with limited staff within the framework governing the policy of the larger system
4. Describe the role and potential of volunteer and friends' groups
5. Outline a general procedure for effective utilization of volunteers

B. Units of Instruction
1. Library systems
2. Policies and procedures manual as an operating guide in the small unit
3. Bookmobiles
4. Small branches
5. Stations
6. Working with volunteers' and friends' groups

C. Laboratory
1. Field trip to a bookmobile or small branch
2. Demonstration and discussion of procedures and techniques

Texts and References

AMERICAN LIBRARY ASSOCIATION. *Studying the Community.*
———. *Circulation Policies of Academic Libraries.*
———. *Standards for Library Service for the Blind and Visually Handicapped.*
———. *Standards for Library Services in Health Care Institutions.*
———. PUBLIC LIBRARY ASSOCIATION. *Interlibrary Cooperation Programs.*
BASSETT. *Practical Interviewing.*
CONANT. *The Public Library and the City.*
COPLAN AND CASTAGNA. *Library Reaches Out.*
FOSTER. *Library in the Small Community.*
HIATT and DRENNAN. *Public Library Service for the Functionally Illiterate.*
JORDAN. *Tomorrow's Library: Direct Access and Delivery.*
JOY. *Libraries for the Handicapped.*
NYREN. *Community Service.*
PENNELL. *The Bookmobile—a New Look.*
THOMPSON. *Interlibrary Loan Procedure Manual.*
WHITE. *Public Library Policies.*

Related Media

Bay State Film Production, 35 Springfield, Agawam, Mass. 01001.

Books on the Move. 18 min., 16 mm., sd., color, no date.
Summary: Visits various bookbinding plants throughout the world, showing how books are manufactured.

Brandon Films, 221 West 57th St., New York, N.Y. 10019.

The Interview. 5 min., 16 mm., sd., color, 1963.
Summary: A satirical interview between a "square" announcer and a "hip" horn player. The announcer is utterly confused by the jazz musician's terminology and the latter is discouraged by the announcer's ignorance. A discussion stimulating film designed to reveal the hazards and problems inherent in communication and interviewing between persons of differing backgrounds.

University of California (Berkeley), Extension Media Center, Film Distribution, 2223 Fulton St., Berkeley, Calif. 94729.

Felicia. 13 min., 16 mm., sd., color, 1966.
Summary: Shows the life of a Negro girl in Watts, California, and presents her observations about life in a segregated community, expressing some of the hopes and frustrations of the Negro population as a whole.

Carousel Films, Inc., 1501 Broadway, New York, N.Y. 10019

Christmas in Applachia. 29 min., 16 mm., sd., color, 1965.
Summary: Shows the effects of poverty and other types of educational and cultural deprivation among the people of Appalachia. The problems of work with the disadvantaged also are covered.

Center for Cassette Studies, 8110 Webb Ave., North Hollywood, Calif.

Neutralizing the Modern Criminal. 28 min., tape cassette.
Summary: Provides a basic background concerning the goals of modern penal practice and the problems in working with this special group.

The People of Second Street. 28 min., tape cassette, 1970.
Summary: Provides an audio portrait of a disadvantaged community, allowing an insight into special needs.

Centron Corporation, West 9th at Avalon Rd., Lawrence, Kan. 66044.

Effective Listening. 15 min., 16 mm., sd., b & w., 1959. Demonstrates the importance of good listening in the Communication process. Discusses ways to develop good listening habits.

Columbia Broadcasting System, 485 Madison Ave., New York, N.Y. 10022.

Don't Count the Candles. 60 min., 16 mm., sd., color, 1958.
Summary: Presents an essay by Lord Snowdon on the problems of old age and loneliness.

Films, Inc., Director of Distribution, 1150 Wilmette, Ill. 60091.

Harlem Crusader. 29 min., 16 mm., sd., b & w., 1965.
Summary: Studies a social worker's activities in Spanish Harlem over a five-year period. Shows the problems he faces in a single block in mid-Manhattan where most of 3,000 inhabitants are Puerto Ricans. Captures the sights and sounds of the modern inner city.

Fund for Adult Education, New York, N.Y.

Community Leadership Institute. 33 min., 16 mm., sd., color, no date.
Summary: Representatives from various community service organizations discuss general civic problems and the work of their specific agencies in meeting community needs.

McGraw-Hill Text Films, 330 West 42nd St., New York, N.Y. 10018.

Portrait of a Disadvantaged Child. 16 min., 16 mm., sd., b & w., 1965.
Summary: Describes the special problems, needs and strengths of the inner city child, explains the gap in cultural values between himself and others.

Portrait of the Inner City. 15 min., 16 mm., sd., b & w., 1965.
Summary: Pictures life in an inner city slum area. Shows both the positive and the negative aspects of growing up in a poverty stricken area.

North Carolina Fund Public Relations Dept., P. O. Box 687, Durham, N.C. 27702.

No Handouts for Mrs. Hedgepeth. 27 min., 16 mm., sd., color, 1968.
Summary: Shows the situation of a domestic worker in Durham, North Carolina, to illustrate the problems of the poor and the aged.

University of Oklahoma, Educational Materials Service, Norman, Okla. 73069.

Books on the Go. 15 min., 16 mm., sd., color, 1961.
Summary: Shows how one cooperative library system came into being through the efforts of interested citizens. Depicts the process of determining the needs, exploring means for meeting those needs, arousing public interest and securing appropriations.

Pennsylvania State University, Theatre Arts Department, Schwab Auditorium, University Park, Pa. 16802.

Improving Interviewing. 33 min., 16 mm., sd., b & w., 1963.
Summary: Uses scores of real interviews as illustrations of the interviewing process.

Potters Photographic Applications, 160 Herricks Rd., Mineola, N. Y. 11501.

Bookbinding— A Series of 8 Introductory Single Concept Films. 4 min. ea., 8 mm. cartridge, silent, b & w., no date.
Summary: Covers basic techniques for bookbinding and minor repair.

University of Southern California, Department of Cinema, University Park, Los Angeles, Calif. 90007.

Studies in Interviewing— A Series. 72 and 69 min., 16 mm., sd., b & w., 1965.
Summary: Demonstrates, in four different situations,

two types of interviews; how interviewers' skills and attitudes affect the interviewee and determine the success of the interview. Designed for social workers, but of direct value to any public service situation where interviewing is important.

Television, Radio and Film Communication, The Methodist Church, 1525 McGavock St., Nashville, Tenn. 37205.

The Volunteer. 14 min., 16 mm., sd., b & w., 1958.
Summary: Discuss the nature of volunteer work and its application in service work.

TECHNICAL PROCESSES II

Hours Per Week

Class, 2; Laboratory, 6

Description

The purpose of this course is to give the library technical assistant a working knowledge of the mechanics of organizing and describing library materials so they can be easily identified and quickly located by library patrons. Several systems for organization of materials are introduced, but the most common systems used in libraries throughout the western world are given greatest emphasis. The advantages, disadvantages and comparisons of classification schemes and types of descriptive analysis are discussed as well as concomitant procedures such as function and choice of subject headings; general rules for the use of cross references; and the shelf list, its make-up, and its use as a tool for the library worker.

This course includes techniques and rules for filing catalog cards, with attention given to an explanation of the major rules set forth by the American Library Association and the description of other common rules and their variants. The cataloging of non-book materials is given particular emphasis because of the nature of the material and the allied problems.

Basic adaptations of computer systems and data processing principles to technical service routines are explored, as well as the limitations and capabilities of machines.

Major Divisions

	Hours	
	Class	Laboratory
I. Introduction	2	6
II. Public Catalog Entry	4	6
III. Main Entry	4	6
IV. Classification	3	12
V. Subject Headings and Cross References	4	12
VI. Shelf List	2	6
VII. Computer Systems	2	6
VIII. Filing	6	18
IX. Processing	2	12
X. General Cataloging Aids	2	6
Total	32	96

I. Introduction

A. Performance Objectives
Upon completion the student should be able to:
1. Identify laboratory tools to be used throughout the course
2. Define special terminology
3. Define the role of the library technical assistant in the technical processes department
4. Describe the various methods for organizing materials
5. Differentiate between the kinds of tasks performed by computers and those performed by hand

B. Units of Instruction
1. Class procedure, outline of course, methods of evaluation, objectives
2. Definitions
3. Role of the library technical assistant
4. Methods of organizing materials
5. Introduction of the computer as an aid to organization of materials

C. Laboratory
1. Make a general examination of laboratory tools to be used in the course
2. Visit the computer center to see the various equipment and observe the operations it performs
3. Compile a list of terms used in the discussion and lectures of the preceding classes

II. Public Catalog Entry

A. Performance Objectives
Upon completion the student should be

able to:

1. Read a catalog entry and identify the data on it
2. Define the relationship between the entry and the location of the book it represents
3. Identify the various kinds of public catalogs
4. Describe data and card copying devices
5. Define unit card
6. Construct a catalog entry
7. Order Library of Congress and H. W. Wilson cards

B. Units of Instruction

1. Catalog entry as visible communication of content of book
2. Catalog entry as link between content and location of book
3. Kinds of public catalogs
   a. Card
   b. Book
   c. Other
4. Sources of catalog data
5. Comparison of sources and type of library likely to use each
6. Methods of acquiring catalog cards
   a. Library of Congress
   b. Information Dynamics System
   c. Polaroid camera
   d. Xerox
   e. Multilith
   f. Card-copying companies
   g. Hand-typing

C. Laboratory

1. Practical exercises covering the multitude of data included for each title in the public catalog
2. Practice on how to read a catalog entry for understanding
3. Observation of card-copying devices, Information Dynamics System, examination of Library of Congress catalog

III. Main Entry

A. Performance Objectives

Upon completion the student should be able to:

1. Define main entry
2. Differentiate between types of main entry
3. Identify problems that occur with choosing main entry
4. Identify the main entry for nonprint materials
5. Define descriptive cataloging
6. Construct a unit card

B. Units of Instruction

1. Definition
2. Standardized main entry vs. main as on title page
3. No-conflict rule
4. Choice of main entry
   a. Single author
   b. Two or more authors
   c. Revision or translation of work by a different author
   d. Form authors
   e. Corporate authors
5. Choice of main entry for audiovisual materials
6. Descriptive cataloging

C. Laboratory

1. Practice identification of each type of main entry
2. Identify the problems and variations that occur
3. Examine and analyze 10 title pages to determine the main entry and contents of the main entry
4. Make unit cards for the 10 titles examined
5. Make unit cards for five different types of audio-visual materials

IV. Classification

A. Performance Objectives

Upon completion the student should be able to:

1. Describe the characteristics and notation of the Dewey Decimal classification system of numbers
2. Describe the characteristics and notation of the Library of Congress classification system
3. Demonstrate through the use of the Library of Congress classification and the Dewey Decimal classification system the differences between the two systems
4. Use the Dewey Decimal tables to classify simple materials
5. Explain the use of author numbers and assign author numbers to selected titles

B. Units of Instruction

1. Dewey Decimal classification
   a. History and development
   b. Characteristics
   c. Notation
   d. Mnemonic devices
      (1) Definition

(2) Geographic divisions (area table)
e. How to use tables
(1) Use of relative index
(2) Use of tables for scope notes and directions for use of numbers (define)
(3) Relationship between subject-headings and cross references brought about through use tables
2. Library of Congress classification
a. History and development
b. Characteristics
c. Notation
d. Book numbers
e. Disadvantages
3. Comparison of Library of Congress and Dewey Decimal classification
a. Expansion
b. Frequency of revision
c. Relationship between classification and subject headings
d. Convenience
4. Author number

C. Laboratory
1. Demonstrate use of Dewey tables through assigned exercises
2. Make simple classification number searches
3. Practice the use of the geographic table
4. Classify 10 titles using the Dewey classification scheme
5. Assign author numbers to 10 titles

V. Subject Headings and Cross References

A. Performance Objectives
Upon completion the student should be able to:
1. Select appropriate subject headings from Sears and Library oi Congress lists for an assigned project
2. Make cross references from subject headings used to otherheadings supplying additional information
3. Make cross references from subject headings not used to ones used

B. Units of Instruction
1. Definition
2. How to choose subject headings
3. Lists of subject headings
a. Card catalog
b. Specialized lists
c. Sears list of subject headings
d. Library of Congress list of subject headings
4. Major usefulness of lists
5. Cross references
a. General rules
b. Specific subjects
c. Refer from subject not used to one used

C. Laboratory
1. Study lists of subject headings
2. Complete practical exercises of choosing subject headings from Sears and Library of Congress lists
3. Make a cross reference for subject headings used
4. Make cross references from subjects not used to one used

VI. Shelf List

A. Performance Objectives
Upon completion the student should be able to:
1. Identify the information needed for the shelf list card
2. Make shelf list cards
3. Extract the proper information needed for statistics and inventory

B. Units of Instruction
1. Definition
2. Uses
a. Cataloging aid
b. Avoidance of duplicate copies
c. Acquisitions information
d. Price information
e. Inventory
f. Withdrawn books
g. Statistics
3. Copy numbers

C. Laboratory
1. Make shelf list cards for each of the 10 titles for which cards were made at an earlier laboratory exercise
2. Examine the various types of shelf lists from area libraries

VII. Computer Systems

A. Performance Objectives
Upon completion the student should be able to:
1. Prepare charts showing the relationship of the various functions of the acquisition process
2. Prepare data needed by computerized acquisitions functions
3. Compile and check data returned from

computer center
4. Compare MARC II with a local mechanized system

B. Units of Instruction
1. Flow charting
a. Introduction
b. Purpose
2. Preparation of data
3. Checking and compiling data returned to the library from computer center
4. Other computer systems
a. Marc II
b. Local systems

C. Laboratory
1. Visit a technical services department that uses the computer for technical routines
2. List functions of technical processes and arrange them in logical chart form showing their relationship

VIII. Filing

A. Performance Objectives
Upon completion the student should be able to:
1. Complete a project in filing following American Library Association rules
2. Complete a project in filing using variations of American Library Association rules
3. Identify and explain differences that occur in computer filing
4. Complete a project filing non-book material cards to demonstrate special problems involved

B. Units of Instruction
1. Background
2. American Library Association rules
3. Word by word vs. letter by letter
4. Explanation of major rules
5. Variations from American Library Association rules
6. Computer filing
7. Special problems of non-book materials

C. Laboratory
1. Conduct independent study of American Library Association rules
2. Demonstrate the use of the major rules by finding examples in the laboratory catalog
3. Demonstrate the use of variants by choosing examples for group discussion
4. Make transparencies of three variants
5. Set up card file containing a given number of catalog cards following filing rules; make subject heading and cross-reference cards for the file

IX. Processing

A. Performance Objectives
Upon completion the student should be able to:
1. Prepare a project in which materials are completely processed
2. Complete a project with variations in the processing of nonprint materials

B. Units of Instruction
1. Book processing procedures
2. Processing of non-book materials
a. Variations from book processing
b. Special problems of
(1) Periodicals
(2) Maps
(3) Pamphlets
(4) Clippings
(5) Microfilms
(6) Motion pictures
(7) Records, discs
(8) Realia
(9) Globes
(10) Pictures
(11) Filmstrips
c. Storage

C. Laboratory
1. Prepare cards and completely process 10 books for which classification and descriptive cataloging has been completed
2. Revise the work of another student
3. Process an assortment of non-book materials

X. General Cataloging Aids

A. Performance Objectives
Upon completion the student should be able to:
1. Identify aids used in the cataloging process
2. Analyze each aid according to the function it performs
3. Complete a set of exercises designed to demonstrate the function of each tool

B. Units of Instruction
1. Library of Congress catalog
2. The book
3. Public catalog
4. Biographical dictionaries
5. Index of government publications
6. American Library Association rules for author and title entries
7. Anglo-American cataloging rules

8. Descriptive cataloging
9. Sears list of subject headings
10. Library of Congress subject headings
11. Dewey Decimal classification tables
12. Author tables

C. Laboratory
1. Independent study of each of these aids in order to facilitate use
2. Make acetates of each aid showing its major uses

Texts and References

ASSOCIATION FOR EDUCATIONAL COMMUNICATIONS AND TECHNOLOGY. *Standards for Cataloging Nonprint Materials.*

BATTY. *An Introduction to the Seventeenth Edition of the Dewey Classification.*

BIDLACK. *Typewritten Catalog Cards: A Manual or Procedure and Form.*

DAILY. *Cataloging for Library Technical Assistants.*

IMMROTH. *A Guide to Library of Congress Classification.*

JOHNSON. *A Programmed Course in Cataloging and Classification.*

PIERCY. *Commonsense Cataloging.*

RESCOE. *Cataloging Made Easy.*

WYNAR. *Introduction to Cataloging and Classification.*

APPLICATION OF COMPUTER AND AUTOMATION TECHNOLOGY TO THE LIBRARY

Hours Per Week

Class, 2; Laboratory, 3

Description

This course will assume that libraries are either automated or should automate due to the vastness and complexity of their files. In general, the records in these files have some of the following characteristics: alphabetic and numeric data, English and foreign languages, variable lengths and, compared to other data processing applications, long records. The wide range of new devices available to the librarian to assist in file processing and retrieval; e.g., telecommunication equipment, microfilm systems, optical character readers, digital and facsimile transmission, and the computer will be discussed and, when possible, examined in depth through field trips and laboratory exercises.

The method of instruction should be a team effort utilizing the knowledge of systems analysts and the library science staff, as well as the cooperation of data processing and library management personnel. To supplement the team teaching approach, access to experiences not possible in the classroom must be provided through field trips, demonstrations, laboratory exercises and vendor presentations.

Major Divisions

	Hours	
	Class	Laboratory
I. Introduction to Library Automation	2	4
II. Application to Computers to Library Automation—An Overview	2	6
III. Information Center Concept	2	3
IV. Information Storage and Retrieval	4	5
V. Considerations in Library Automation	6	10
VI. Case Study—MARC	6	10
VII. Emerging Application of Automation to Library Systems	6	9
Total	21	48

I. Introduction to Library Automation

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the size of the body of recorded information within various disciplines
2. List the major factors that have contributed to the current explosion of information
3. Identify the basic terms of information processing including transmission, evaluation, selection, analysis, indexing, storage, correlation, retrieval, dissemination, utilization, record, file, classification, browsing, batch, remote, data and document
4. Define classic library problems and describe possible causes
5. Itemize and define the fundamental file problems in the average library
6. Describe the fundamental operation of indexing and the methods of recognizing, selecting, identifying and arranging data to facilitate processing

B. Units of Instruction

1. Information explosion
   a. Technical periodicals
   b. Quantity and quality
2. Statements of information problems
   a. Increasing costs of information processing
   b. Storage costs
   c. Transmission costs
   d. Hardware and software costs
3. Terminology
   a. Files, records, lists, bits of information, coding
   b. Computer personnel definitions vs. librarian definitions
4. Classic library problems
   a. Manpower shortage
   b. Economic costs
   c. Complex files
   d. Obsolescence
   e. National and linguistic differences

C. Laboratory
1. Draw a systems flow chart of an existing order processing system from a narrative description
2. Participate in a group interview with a library manager to gather data on transaction volumes and problems that need automating, and from these data draft a basic report on the need to mechanize
3. Prepare a technical report of groups currently involved in study of library automation

II. Application of Computers to Library Automation— An Overview

A. Performance Objectives
Upon completion the student should be able to:
1. Itemize the major abstracting, indexing and reference services currently in existence
2. Demonstrate the procedure for analyzing text structure of all major reference works
3. Outline and discuss the procedure for preparing retrieval techniques
4. Examine and describe implications of the advances in library automation, including facsimile transmission, inquiry devices and COM
5. Describe techniques of processing reference information, including KWIC, SLIC and on-line display devices
6. Describe the batch and on-line systems including limitations and advantages of each
7. Describe the technique to prepare a computer-generated book catalog
8. Outline the major economic considerations in determining feasibility of automating an operation
9. Describe the current projects involving library automation, including Index Medicus, Marc I and II, and Ohio College Library Center

B. Units of Instruction
1. Basic automated library operations
   a. Bookkeeping operations
   b. Machine-readable catalogues
   c. Computer-generated lists; e.g., new books, bibliographies
   d. Circulation control
   e. Catalog card production
   f. Purchase orders
2. Projects and experiments in library automation
   a. National Library of Medicine — Index Medicus
   b. Library of Congress and British National Bibliography — MARC
   c. New York State Libraries — facsimile transmission
   d. Ohio College Library Center — regional center

C. Laboratory
1. Prepare a 50 to 150-word snyopsis of a) the MARC II Project, b) the Index Medicus project
2. Write a narrative description of an automated acquisition system from existing flow charts
3. Field trip—circulation control system
4. Field trip—LC machine-readable catalog distribution

III. Information Center Concept

A. Performance Objectives
Upon completion the student should be able to:
1. Demonstrate familiarity with the statistical nature of English words for the purpose of coding data
2. Demonstrate an ability to systematically abbreviate English words
3. Demonstrate knowledge of superimposed coding
4. Code data for inclusion in automated files
5. Describe information retrieval techniques in an automated microfilm system
6. Detail an aperture card application to an order system

B. Units of Instruction
   1. Functions of an information center
      a. Acquisition
      b. Organization
      c. Analysis
      d. Synthesis
      e. Storage and retrieval
      f. Dissemination
   2. Identification of users
      a. Material required and recommended
      b. Material for research
      c. Bibliographic services
      d. Current journals
      e. Browsers
   3. Quantity of information needed
   4. Access to material stored
   5. Processing and maintaining of data
   6. Availability of mechanized equipment
   7. Services and products available
   8. Methods of coding data

C. Laboratory
   1. Field trip—vendor's office or machine-record show to be exposed to current technology in data processing equipment
   2. Develop portfolio of available data processing devices from advertisements and news articles

IV. Information Storage and Retrieval

A. Performance Objectives
   Upon completion the student should be able to:
   1. Describe and demonstrate knowledge of microfilm and image handling equipment and techniques
   2. Identify data storage media: paper tape, magnetic tape, aperture cards, edge-punched cards, punched cards, magnetic disks and microform
   3. Describe the application of information technology to the processing of data in library operation
   4. List the major vendors of data processing equipment
   5. Prepare a basic cost-benefit study using an automated system for an operation, with emphasis on identifying major cost factors
   6. Describe file maintenance considerations in a circulation control system
   7. Outline the criteria for evaluating the effectiveness of information retrieval systems

B. Units of Instruction
   1. Tools available
      a. Manual card catalog
      b. Edge-punched cards
      c. Mechanical imprinters
      d. Punched card
      e. Paper tapes
      f. Magnetic tapes, drums, disks and cards
      g. Microfilm; e.g., microfiche, microfilm, aperture cards
   2. Techniques of retrieval
      a. KWIC method (Key Word in Context)
      b. SLIC method (Selective Listing in Combination)
      c. Chain indexing

C. Laboratory
   1. Field trip—computer center to view application of the use of a computing system in a library operation; also demonstrations of available I/O media; e.g., paper tape, COM (Computer-Output Microfilm), OCR (Optical Character Reader), CRT (Cathode Ray Tube)
   2. Given an alphabetic list of book titles, generate an index in the KWIC format.
   3. Field trip—distributor of microform equipment; available technology and indexing techniques to retrieve data stored in microform

V. Considerations in Library Automation

A. Performance Objectives
   Upon completion the student should be able to:
   1. Discuss the application of punched cards and punched card equipment to catalog production
   2. Relate the following terms to library files and systems: input, processing, storage, output and file maintenance
   3. List the publications that discuss use of information processing technology in library operations
   4. Approximate the costs of the application of computer technology to basic library operations

B. Units of Instruction
   1. Input
      a. Data requirements
      b. Code design
      c. Forms design
      d. Data collection
         (1) Devices
         (2) Methods available
   2. Output
      a. Requirements

b. Report design
3. Files
a. Availability and cost of storage media
b. Complexity of system design involved
(1) Speed necessary to retrieve
(2) Arrangement of records for access
(3) Volume that medium can hold
4. Controls and security
a. Management
b. Audit
c. File

C. Laboratory
1. Case study—computer produced book catalog
a. Document using tools of systems analysis
b. Prepare examples of input data
c. Describe necessary programs
d. Describe necessary files
e. Describe reporting and control systems
f. Describe file maintenance requirements
2. Operate computing system and peripherals under supervision with provided programs and data from existing documentation

VI. Case Study—MARC (Machine-Readable Cataloging)

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the role of advanced operations analysis techniques as applied to library systems; e.g., Critical Path, PERT, systems simulation and forecasting
2. Describe the steps in preparation and implementation of the MARC II programs: a) systems analysis, b) file design philosophy, c) program planning, d) data coding and e) documentation requirements
3. Define file maintenance and retrieval techniques of the MARC project
4. Describe hardware, software, user programs and personnel as functional elements of the MARC system
5. Assess the costs and benefits of implementing the MARC II system in a regional library

B. Units of Instruction
1. MARC I
2. MARC II
3. MARC I and MARC II comparisons
4. Ability to utilize various machines, modifiable to local conditions
5. File structure
a. Standardization with flexibility
b. Tag identification for retrieval
c. Record format

C. Laboratory
1. Philosophy and techniques of MARC
a. Tagging of data elements
b. Statistical file analysis (GENESIS)
c. Informational retrieval (MARC retrievers)
2. Format of MARC record to prepare bibliographic data
a. Load
b. Edit
c. Maintenance
d. Index processing
e. Report generating

VII. Emerging Application of Automation to Library Systems

A. Performance Objectives
Upon completion the student should be able to:
1. Evaluate technological advances for local application
2. Communicate with information processing specialists relative to library needs and systems
3. Read and understand technical reports produced by an individual or groups that concern the application of computer and information processing technology to library operations
4. Describe the need for national and regional systems
5. Describe possible locations for data storage in inter-institution systems
6. Evaluate the emerging applications as to their ability to meet the goals of the local library

B. Units of Instruction
1. Implementation of MARC
2. Shared cataloging systems
3. Remote catalog access
4. Remote circulation control system
5. Acquisition system
6. Catalog production
7. U. S. Army—TISA project, develop service to inform librarians of technology available and needed

C. Laboratory
1. Describe the files necessary for an online circulation control system and de-

scribe the capabilities and limitations
2. Document, with systems flow charts, an acquisition system with on-line capabilities
3. Work with a group to develop a report on how a project like TISA can assist the local library

Texts and References

BECKER. *ALA Bulletin.*
BECKER. *Wilson Library Bulletin.*
BECKER *and* HAYES. *Information Storage and Retrieval: Tools, Elements, Theories.*
BELLOMY. *ALA Bulletin.*
BOURNE. *Methods of Information Handling.*
BURKHALTER. *Case Studies in Systems Analysis in a University Library.*
CHAMIS. *Special Library.*
COX ET AL. *The Computer and the Library.*
DEGENNARO. *Journal Library Automation.*
GULL. *Library Resources and Technical Services.*
HAYES. *The Concept of an On-Line Total Library System.*
HAYES. *ALA Bulletin.*
KIMBER. *Automation in Libraries.*
KOUNTZ. *Journal Library Automation.*
PARKER. *Wilson Library Bulletin.*
TRUESWELL. *College and Research Library.*
WAITE. *Wilson Library Bulletin.*

Related Media

City College of New York, Audiovisual Center, School of Business and Public Administration, 17 Lexington Ave., N.Y. 10010.

Automatic Information Retrieval. 13 min., 16 mm., sound, color, no date.

Film Associates, 11559 Santa Monica Blvd., Los Angeles, Calif. 90024.

The Computer Revolution. 24 min., 16 mm., sound, color, 1968.

Indiana University, Audiovisual Center, Bloomington, Ind. 47401.

Universal Machine. 29 min., 16 mm., b & w., 1962.

International Business Machines (Contact nearest office)

Information Retrieval. 18 min., 16 mm., sd., color, 1961.

Systems. 14 min., 16 mm., sd., color, 1969.

What is EDP? 16 min., 16 mm., sd., color, 1961.

Modern Talking Pictures, 3 East 54th St., New York, N.Y. 10022 (Contact nearest office)

The Computer and You. 22 min., 16 mm., sd., color, 1968.

Time-Life Films, 43 W. 16th St., New York, N.Y. 10011.
The Ultimate Machine. (Series: Life Around Us) 28 min., 16 mm., sd., color, 1968.

SUPERVISED WORK EXPERIENCE

Hours Per Week

Class, 1; Laboratory, 12

Description

The primary objective of this course is to provide the student with carefully planned and closely supervised field work in at least two different types of libraries or media centers. By working under actual library conditions, students are given the opportunity for a variety of learning experiences structured to combine theory with practice.

The work experience program should extend for eight weeks in each of two different types of libraries. During the eight weeks the student should work in at least two, preferably three, different areas such as technical processes, public service, reference services and media services. This division of activities will provide wide exposure and an overall view of the various operations of the library or media center.

During the 17-week semester, the student should spend a minimum of 12 hours per week in the participating libraries. One hour per week also should be arranged for a seminar or individual conference with the faculty supervisor for the purpose of discussion and evaluation of the work experience and to develop an understanding of employer-employee relationships. Techniques for effective management and guidance of nonprofessional staff in a working situation will be emphasized.

There should be a final evaluation of the student's learning activities, performance and attitudes by the supervising librarians at the termination of each eight-week segment. These evaluations should be discussed with the student so that he is aware of his particular strengths and weaknesses and can begin his career with a more concrete concept of himself.

Because of the wide variety of library facilities, and consequently purposes and services, of these different institutions, deviations from the suggested course outline often will occur, but the primary objectives of the work experience should be maintained.

Major Divisions (Order is not significant)

	Hours	
	Class	Laboratory
I. Technical Processes	4	48
II. Public Services	4	48
III. Readers' Services	4	48
IV. Media Services	4	48
V. Final Seminar and Evaluation	4	—
	—	—
Total	20	192

I. Technical Processes

A. Performance Objectives
Upon completion the student should be able to:
1. Given a list of order requests, check shelf list, on-order and other in-house files and indicate if the library has the title in the collection or on order
2. Complete bibliographic information for ordering titles and prepare order forms
3. Receive materials delivered to the library and maintain the in-house order file
4. Catalog and physically prepare a variety of print and nonprint materials for shelving
5. File cards in the public catalog
6. Prepare cross-reference cards for the public catalog
2. Prepare information in machine-readable form for automated records
8. Assist in the preparation or revision, or both, of departmental manual for clerical and non-professional staff

B. Laboratory—work experience
1. Acquisitions
a. Print materials—books
(1) Bibliographic searching
(2) Ordering and receiving procedures
(3) Record maintenance
b. Print materials—periodicals and vertical file
(1) Ordering and receiving procedures
(2) Record maintenance
c. Media materials
(1) Ordering and receiving procedures
(2) Record maintenance
2. Cataloging
a. Print materials
b. Media materials
c. Maintaining public catalog and in-house records
d. Preparing information in machine-readable form for automated records
3. Physical preparation of book and media materials for distribution

C. Seminar
1. Development of library organization chart
2. Development of work-flow chart in technical processes department
3. Techniques for effective management of clerical operations and staff in a technical processes department
4. Techniques for effective management of stock supplies; maintenance of bindery records and inventory procedures
5. Discussion of work activities and evaluation of progress

II. Public Service

A. Performance Objectives
Upon completion the student should be able to:
1. Maintain circulation records of all types
2. Prepare a plan for inventory control and maintenance of stacks
3. Identify and evaluate the current reserve system
4. Process interlibrary loan requests
5. Develop a plan for the maintenance of materials
6. Describe the techniques and procedures to be followed when working with special groups

B. Laboratory—work experience
1. Circulation procedures
a. Borrower registration
b. Charging and discharging procedures
c. Fines and overdue and record maintenance
d. Shelving supervision and inventory control
2. Reserve systems and selective dissemination of information
3. Interlibrary loan procedure
4. Materials conservation
a. Print
b. Media materials
5. Procedures for working with special groups
a. Disadvantaged
b. Handicapped
c. Homebound

d. Specialized groups of professionals
e. Institutionalized groups

C. Seminar
1. Discuss the major kind of records that are kept in regard to the distribution policies of the library and the relative merits of these records
2. Discuss the relative advantages of the specific charging system in current use in the library
3. Describe and discuss a logical and efficient inventory control routine to fit the library situation
4. Discuss the procedures for processing reserves
5. Discuss the concept of selective dissemination of information and the procedures necessary to implement this service
6. Discuss the factors that govern interlibrary loan procedures
7. Discuss the procedures required for bindery preparation of materials
8. Discuss the techniques and materials used in working with special groups or individuals
9. Develop techniques for effective guidance of clerks and other nonprofessional staff in the performance of circulation routines
10. Discuss work activities and evaluate programs and learning experience on the job

II. Readers' Services

A. Performance Objectives
Upon completion the student should be able to:
1. Answer directional and simple reference questions and refer clients to specialists for professional assistance
2. Instruct clientele in the use of the public catalogs and general reference materials
3. Describe the procedure to be followed in providing telephone and mail assistance to library clients
4. Assist clients in the use of special library materials and equipment
5. Develop a plan for the implementation of readers' service programs for special groups
6. Assist children and young adults in the use of the library and help implement programs for them
7. Compile bibliographic information and research data
8. Design and assemble displays
9. Assist in the preparation of suggested reading lists and special bibliographies

B. Laboratory – work experience
1. Information desk
a. Directional questions
b. Referral service
c. Instruct clientele in use of public catalogs and general reference materials
2. Telephone and mail assistance
a. Answer general reference questions
b. Classify and refer inquiries to subject specialists or reference librarians
3. Readers' assistance
a. Assist clientele in use of special indexes, encyclopedias and dictionaries
b. Answer simple reference questions
c. Assist clientele in the use of vertical file materials, microforms and library equipment
d. Assist with interlibrary loan requests
4. Outreach programs and special services
a. Assist with the implementation of readers' service programs for the disadvantaged, institutionalized, homebound or handicapped
b. Assist with special readers' service programs for children and young adults
5. Research – bibliographic services
a. Assist in locating and compiling bibliographic information
b. Assist in locating information and sources of research data
6. Public relations service
a. Design and assemble special displays
b. Assist in the preparation of special reading lists

C. Seminar
1. Discuss problems encountered in assisting clientele in using public catalogs and all forms of reference materials
2. Discuss the special readers' programs of the library in terms of the population served, program objectives and services rendered
3. Discuss effective guidance and supervisory techniques as applied to clerks and other nonprofessional staff engaged in readers' service activities
4. Discuss work activities and evaluate

progress and learning experiences

IV. Media Services

A. Performance Objectives
Upon completion the student should be able to:
1. Check in-house files, locate bibliographic information and prepare orders for media materials and equipment
2. Catalog and process media materials
3. Maintain public media catalogs
4. Select procedures for scheduling, distribution and inventory control of media materials and equipment
5. Maintain and make minor repairs to media equipment and materials
6. Instruct clientele in the operation of media equipment
7. Design and produce graphic materials
8. Reproduce and duplicate print and nonprint materials
9. Record and duplicate recorded sound

B. Laboratory—work experience
1. Acquisition of media materials and equipment
   a. Rental
   b. Purchase
2. Organization of media materials
   a. Cataloging
   b. Physical preparation for circulation
   c. Maintenance of media catalog
3. Distribution of media materials and equipment
   a. Scheduling
   b. Storage
   c. Inventory
   d. Statistical record keeping
4. Operation and maintenance of media equipment and materials
   a. Maintenance of equipment and materials
      (1) Preventive maintenance and repair
      (2) Maintenance record keeping
   b. Supervising the operation of equipment and viewing and listening centers
      (1) Scheduling preview rooms, wet carrels and preview-listening rooms
      (2) Supervision of projectionists and other equipment operators
   c. Assisting clientele in the operation of photoduplication and other media equipment
5. Local production of media materials
   a. Graphics design and display
   b. Reproduction and duplication
   c. Photographic production
   d. Sound recording and reproduction
   e. Display and exhibit techniques

C. Seminar
1. Discuss the procedures and problems involved with acquisition of media materials and equipment
2. Discuss the procedures and problems encountered in the organization of media materials
3. Discuss the procedures and problems involved with the scheduling, distribution and storage of media materials and equipment
4. Discuss the procedures to be followed in a preventive maintenance program
5. Discuss procedures for maintaining inventory controls on materials and equipment
6. Develop techniques for effective guidance and supervision of media clerks and other non-professional staff
7. Discuss procedures and problems encountered in the process of producing media materials
8. Discuss work activities and evaluate progress and learning experience on the job

V. Final Seminar and Evaluation

A. Performance Objectives
Upon completion the student should be able to:
1. Define his role and responsibilities as a member of the library manpower team
2. Identify the elements of basic supervision of staff
3. Explain library procedures, policies and objectives within each department of the libraries in which he worked
4. Identify terminology unique to the library
5. Identify the variety of materials housed in a library
6. Identify attitudes that are essential to the "service" concept
7. Prepare a resume

B. Seminar
1. Discussion of work attitudes
   a. Job responsibilities
   b. Responsibilities to fellow workers, employer and clientele
2. Summary and discussion of effective

management and supervisory techniques in a variety of situations
3. Preparation of resume, and applying and interviewing for a position
4. Discussion and written evaluation of job performance and attitudes by supervising librarians and faculty instructor

Texts and References

BISHOP. *Dynamic Supervision.*
PAUL. *Short Course in Skilled Supervision.*
WILSON. *Improving Supervisory Skills.*

Career Elective

CHILDREN'S LIBRARY SERVICES

Hours Per Week

Class, 3

Description

This course is designed to acquaint the library technical assistant with services for children in the elementary or middle school library or in the public library. Procedures and techniques for working with children are emphasized. The course will offer an introduction to authors and illustrators, background knowledge of children's interests and an overview of all media. School library programs and the duties required for giving service at this level are emphasized.

Students will be expected to acquire an understanding of the kinds of services and programs which are relevant to the interests and needs of children. They will assist in the preparation of programs for individuals, small groups and large groups of children as well as for parents and community agencies concerned with the development of the child. They will be expected to assist with children's programs in both a school library and a public library. This experience will help the student broaden his understanding of the sources provided by the school library and the children's division of a public library.

Major Divisions

	Hours Class
I. Objectives of Children's Services	8
II. Overview of Children's Books and Current Trends	10
III. Overview of Media as it Relates to Contemporary Children's Programs	8
IV. Techniques for Working with Children	8
V. Other Children's Programs	8
VI. Library Service to Children	6
Total	48

I. Objectives of Children's Services

A. Performance Objectives

Upon completion the student should be able to:

1. Select several books that would help to meet the needs of children; create an index file of these books and make notations as to the age level of each book; and, include a brief evaluation of each book
2. Select a variety of media materials which can be used for guidance in a discussion with children and explain how these materials could be used with small and large groups of children
3. Examine a floor plan for a children's department in a public library and note the size of the collection, the necessary seating, shelving and lounging areas and facilities for using a variety of audiovisual materials
4. Compile a list of 20 books which are essential for a school or child's library using current tools such as *Children's Catalog* and *Books for the Elementary School Library*
5. Prepare a list of suggestions for parents to help their child develop an interest in all types of media materials
6. Assist young children to develop an interest in books by helping as a volunteer in a pre-school day care center

B. Units of Instruction

1. Meeting the needs of children
   a. To achieve
   b. To know
   c. To be loved
   d. To belong
   e. To change
   f. For beauty
   g. For security
2. Child guidance through books and media
   a. Reading
   b. Listening
   c. Viewing
3. Creating an atmosphere conducive to meeting these needs
   a. School library
   b. Public library
4. The library and community agencies
   a. Pre-school day care centers
   b. Volunteers
   c. Other agencies
5. The library and the home

II. Overview of Children's Books and Current Trends

A. Performance Objectives
Upon completion the student should be able to:
1. Identify several classical and contemporary authors and titles of children's books
2. Compile a list of three or more picture books which would provide a basis for a beginning picture book program
3. Compile a bibliography of folk and fairy tales, myths, and hero stories that could be used effectively in a read aloud program with children
4. Compile a bibliography of animal story, realistic and biography books that would provide stimulation for pleasure reading for children
5. Prepare a list of children's information books that would assist them in seeking answers independently
6. Examine several types of books in terms of meeting and satisfying a variety of children's needs, and describe what possible effects they could have on children
7. Survey the children's magazines available at a local public library and identify the age groups and interests to which they are directed
8. List several current trends in children's books and programs that are effecting a change in the "traditional" approach to children's programs
9. Identify the tools that are used for locating children's materials

B. Units of Instruction
1. Trends in literature
   a. Picture books
   b. Folk and fairy tales, myths and hero stories
   c. Animal stories
   d. Realistic stories
   e. Poetry
   f. Biography
   g. Informational books
2. Relating the different kinds of books to children's needs and interests
3. Tools useful in locating children's materials

III. Overview of Media as it Relates to Contemporary Children's Programs

A. Performance Objectives
Upon completion the student should be able to:
1. Demonstrate a competency in the use of a variety of media materials and equipment sufficient to assist children in the use of these materials and equipment
2. Describe how children could be motivated to use a variety of media materials in order to develop study, reading, listening, talking, observation, tactile, expressive and communicative skills
3. View at least two children's television programs with a child or children and evaluate the programs in terms of educational and entertainment value, or both, from a child's and an adult's viewpoint
4. Examine several popular comic books and describe what possible good or bad effects they could have on children

B. Units of Instruction
1. Motivating and developing competency in the use of multimedia materials in the library
   a. Books
   b. Pamphlets
   c. Multimedia kits
   d. Periodicals
   e. Films
   f. Filmstrips and slides
   g. Pictures and prints
   h. Records and tapes
2. Mass media and its effects on children and children's programs
   a. Television
   b. Radio
   c. Newspapers and magazines
   d. Paperback books
   e. Comics
   f. Motion pictures

IV. Techniques for working with children

A. Performance Objectives
Upon completion the student should be able to:
1. Choose a story and prepare it for reading or telling to a group of children
2. Select a story that lends itself to enhancement through the use of audio-visual materials and present it to the class using these materials
3. Introduce and read part of a picture story to a group of young children using the pictures before, with and after the story

B. Units of Instruction
1. Story reading and telling

a. When to read stories and when to tell them
b. Planning and presenting a story hour
c. Utilization of media materials and materials for story hours
2. Preparation and delivery of a story
3. Book talks and book discussions
a. Planning and presenting a book talk and book discussion
b. Utilization of media materials for enhancement of book talks and book discussions
4. Instructing children in the use of library resources
a. Traditional and new library skills
b. Assisting individuals and small groups in the development of library skills
5. Plan and present a book talk and discussion using a variety of media materials to enhance the presentation
6. List the library skills that should be taught to children at various age levels and explain how these skills should be taught on an individual basis and with a small group of children

V. Other Children's Programs

A. Performance Objectives
Upon completion the student should be able to:
1. Assist in the preparation of a reading program in a public or school library
2. Read a story animated with puppets and present it to an audience of children as a class project
3. Assist in the planning and presentation of an unusual program that will be exciting to a pre-school group of children in a day care center
4. Develop a program to promote a particular observance such as National Library Week

B. Units of Instruction
1. Reading programs
2. Community outreach programs
3. Awards and observances

VI. Library Service to Children

A. Performance Objectives
Upon completion the student should be able to:
1. From visits to public libraries, compile a minimum list of equipment, materials and facilities necessary for implementation of a children's program
2. Describe the duties and responsibilities of the library technical assistant as an assistant to a children's librarian in a public library
3. Visit a school library or media center and list the facilities, equipment and materials provided therein
4. Define the duties and responsibilities of the library technical assistant in a school library or media center

B. Units of Instruction
1. Public libraries
a. Equipment, facilities and materials necessary for effective children's programs
b. Duties required of library technical assistants
2. School libraries
a. Standards for school libraries
b. Equipment, materials and facilties for effective support of the school program
c. Duties required of library technical assistants

Texts and References

BOYD, JESSIE and OTHERS. *Books, Libraries, and You.*
BRODERICK, DOROTHY M. *An Introduction to Children's Work in Public Libraries.*
GILLESPIE, JOHN and LEMBO, DIANA. *Introducing Books, a Guide for the Middle Grades.*
JACOBS, LELAND, ED. *Using Literature With Young Children.*
LARRICK, NANCY. *A Parent's Guide to Children's Books.*
PALOVIC, LORA and GOODMAN, ELIZABETH B. *The Elementary School Library in Action.*
SAWYERS, FRANCES C. *Summoned by Books.*
TREUND, ROBERTA B. *Open the Book.*

Related Media

American Library Association, 50 E. Huron St., Chicago, Ill.

And Something More. 28 min., 16 mm., sd., color, 1964.

At the Center. 20 min., 16 mm., sd., color, 1971.

Lively Art of Picture Books. 45 min., 16 mm., sd., color, 1964.

Children's Book Council, 175 Fifth Ave., New York, N.Y.

Pleasure Is Mutual. 24 min., 16 mm., sd., color, 1966.

General Aniline and Film, New York, N.Y.

How to Use a Library. 35 transparencies, 8" x 10", color with overlays, 1965.

Library Filmstrip Center, Wichita, Kan.

Books Talk Back. 35 mm. filmstrip, 50 fr., sd., color, 1967.

McGraw-Hill, New York, N.Y.

The School Library Series. 35 mm., 8 filmstrips, color, 1965.

Weston Woods, Weston, Conn.

Ezra Jack Keats. 8 min., 16 mm., sd., color.

Robert McCloskey. 18 min., 16 mm., sd., color, 1965.

WORK EXPERIENCE EVALUATION RECORD

COOPERATING LIBRARY/MEDIA CENTER _____ ADDRESS _____ PHONE _____

STUDENT'S NAME _____ ADDRESS _____ PHONE _____

Date of Birth _____ Course No. _____ Semester _____ Instructor _____

RECORD OF SUPERVISED WORK EXPERIENCE

Kind of Work	Beginning Date	Ending Date	Hours Worked per week	Department	Supervisor

EVALUATION OF PERSONAL AND SOCIAL CHARACTERISTICS

Characteristics	Evaluation				Characteristics	Evaluation			
	Excellent	Good	Fair	Poor		Excellent	Good	Fair	Poor
Seriousness of purpose					Initiative				
Cooperation					Personal appearance				
Courtesy					Self-control				
Dependability					Responsibility				
Loyalty					Concern for others				
Honesty-Integrity					Leadership				
Industriousness					Emotional Stability				

EVALUATION OF WORK EXPERIENCE

Library/Media Center _____

Instructor _____

General Education Courses

COMMUNICATIONS I

Hours Per Week

Class, 3

Description

This course stresses the analysis and synthesis of structural components of basic communications skills as they relate to the whole message. Lecture, discussion and demonstration sections will emphasize the four basic communication areas of reading, listening, speaking and writing in the process of exposition.

This course explores the similarities and differences in basic communication skills. Reading and listening are emphasized as reception functions; speaking and writing are demonstrated as transmission functions. However, the course work illustrates the similarity in basic components of expository communications: organizational structure, logical development and coherent presentation.

During the semester the student, as reader or listener, will be expected to demonstrate his ability to criticize materials for clarity, unity and organizational structure. He will be expected to present a speech which will be similarly evaluated. His written presentations will be illustrations of his capability to create expository prose, culminated by a clearly documented investigative expository paper.

Major Divisions

	Hours Class
I. The Whole Message; Process of Communication	2
II. The Basic Unit of Thought; the Expository Sentence	10
III. The Basic Message, the Paragraph	16
IV. The Expanded Message, the Essay	12
V. The Documented Message, the Research Paper	8
Total	48

I. The Whole Message; Process of Communication

A. Performance Objectives
Upon completion the student should be able to:
1. When given a message, analyze the communication process in order to identify the structural components of the whole message.
2. When given a message, identify the common factors of the expository communication process of reading, listening, speaking and writing
3. When given a message, distinguish the differences between reading, listening, speaking and writing in the expository communication process

B. Units of Instruction
1. Skills serving similar functions in the four expository processes; reading listening, speaking, writing
   a. Clarity of purpose
   b. Adequate command of the language
2. Skills indigenous to the individual communicative processes
   a. Receiver
      (1) Assimilation
      (2) Critical evaluation
   b. Transmitter
      (1) Controlled selection of subject
      (2) Thoughtful development of ideas

II. The Basic Unit of Thought; the Expository Sentence

A. Performance Objectives
Upon completion the student should be able to:
1. When given an expository sentence, identify the basic clause
2. When given an expository sentence, identify the levels of generality (from the abstract to the concrete) of the modifying structures and identify the grammatical functions of these modifying elements
3. Write a basic clause that incorporates a complete idea
4. Write an expository sentence in which the basic clause is modified at the various levels of generality by means of a variety of modifying structures
5. Write an expository sentence in which the vocabulary effectively supports the purpose of the basic idea

B. Units of Instruction
1. Analysis of expository sentence structure (listening, reading functions)

a. The basic clause
b. Modification of the basic clause levels of generality
(1) Structures modifying single units of thought
(a) Words
(b) Phrases
(c) Clauses
(2) Structures modifying the whole clause
(a) Words
(b) Phrases
(c) Clauses

2. Synthesis of the basic expository sentence structure (writing, speaking)
a. Construction of the basic clause
(1) Exclamatory
(2) Interrogative
(3) Expository
b. Modification of the basic clause, levels of generality
(1) Grammatical requirements
(a) Individual word modification
(b) Whole clause modification
(2) Vocabulary distinctions to identify and clarify the purpose
(a) Expository
(b) Descriptive
(c) Narrative

III. The Basic Message; the Paragraph, Organizational Structure

A. Performance Objectives
Upon completion the student should be able to:

1. When given a paragraph in written or oral form, identify the topic sentence and analyze this sentence for its components, subject, control and supporting ideas
2. When given a paragraph in written or oral form, analyze it for organizational structure and identify this structure (definitive, informative, explanatory, procedural)
3. When given a paragraph in written or oral form, analyze it for modifying elements identifying the levels of generality of these elements (from the general to the specific); identify the grammatical function served by each of these elements
4. When given a paragraph in written or oral form, identify the transitional devises used within the paragraph
5. Write an expository paragraph utilizing the elements previously analyzed
6. Present an expository speech utilizing the component elements of exposition, as well as the techniques of oral presentation

B. Units of Instruction
1. The component parts of the topic sentence (receiver and transmitter functions)
a. Subject
b. Control
c. Statement of supporting ideas
2. Organization of the expository paragraph (receiver and transmitter functions)
a. Definitive
(1) Classification of elements
(2) Differentiation into categories
b. Informative
(1) Analysis of subject matter
(2) Logical division by classification
c. Explanatory
(1) Analysis of subject matter
(2) Logical division by classification
d. Procedural
(1) Analysis of subject matter
(2) Chronological division into categories
3. Modification of the Expository paragraph (receiver and transmitter functions)
a. Coordination
b. Subordination
(1) Levels of generality
(2) Connectives
(a) Word
(b) Phrase
(c) Clause
(d) Punctuation
c. Transitional techniques
(1) Repetition
(2) Pronoun references
(3) Summary
(4) Connectives
(5) Techniques of oral presentation

IV. The Expository Essay, Receiver (analysis) and Transmitter (synthesis) Functions

A. Performance Objectives
Upon completion the student should be able to:

1. Efficiently research as to focus upon a subject for an expository prose presentation
2. Organize the supportive material for the topic, utilizing accepted outlining procedures
3. Identify the organizational structure of oral or written expository essays: thesis, supporting elements, transitional devices, conclusion. Judge the value of the supporting material to the thesis according to criteria established for expository prose
4. Create expository essays in written or oral communication utilizing the presentation technique applicable to each

B. Units of Instruction
   1. Preliminary planning
      a. Analysis of subject
         (1) Research
         (2) Focus
      b. Logical division
         (1) Grammatical devices
         (2) Mechanical techniques
   2. Construction of the expository essay
      a. Introducton
         (1) Introducer
         (2) Thesis
         (3) Purpose
         (4) Controlling ideas
      b. Expansion of the thesis, supporting paragraphs
         (1) Transitional techniques to connect paragraphs
            (a) Initial
            (b) Internal
            (c) Final
         (2) Expression of topic
            (a) Division
               (i) Topic sentence
               (ii) Support sentences
            (b) Generality levels
               (i) Coordinate
               (ii) Subordinate
      c. Completion
         (1) Summary of thesis
         (2) Conclusions
   3. Presentation techniques of oral expository prose
      a. Extemporaneous
      b. Read

V. The Research Paper

A. Performance Objectives

Upon completion the student should be able to:
1. Determine a topic suitable for a research paper and develop it into a thesis
2. Utilize library resources in the preparation of a paper
3. Develop a preliminary organizational pattern for a research paper
4. Take efficient research notes
5. Organize supporting material
6. Write a research paper which is structurally and mechanically correct

B. Units of Instruction
   1. Topic
      a. Preliminary research for selection
      b. Focus
   2. Research (receiver functions)
      a. Working bibliography
      b. Preliminary outline
      c. Note-taking
      d. Final outline
   3. Writing the paper (transmitter functions)
      a. First draft
      b. Final draft
         (1) Standard format requirements
            (a) Cover
            (b) Title page
            (c) Outline
            (d) Paper
            (e) Bibliography
         (2) Footnotes
            (a) Source
            (b) Explanatory
         (3) Bibliography
         (4) Other source material
            (a) Charts
            (b) Diagrams
            (c) Illustrations

Texts and References

BUEHLER *and* LINKUGEL. *Speech Communication.*
DEAN *and* BRYSON. *Effective Communications.*
ELSBREE *and* BRACHER. *Heath's College Handbook of Composition.*
GALLO *and* RINK. *Shaping College Writing.*
GERBER. *Effective English.*
GRIFFIN *and* POTEET. *Sentence Strategies: Writing for College.*
HAYAKAWA. *Language in Thought and Action.*
HIBBS. *Writing: Fact and Imagination.*
KAPSTEIN. *Expository Prose: An Analytic Approach.*
LEE. *Library Resources: How to Research and Write a Paper.*
LEGETT, MEAN *and* CHARVAT. *Prentice-Hall Handbook for Writers.*
LEVY. *College Workbook of Composition.*
OSTROM. *Better Paragraphs.*

COMMUNICATIONS II

Hours Per Week

Class, 3

Description

This course utilizes the mechanics and dynamics of group discussion to evaluate the mass media in American society. Lectures will outline the basic concepts, but emphasis is placed on participation in the utilization of group discussion interaction techniques, primarily related to group enlightenment procedures or problem-solving measures. The basic investigative projects will be focused upon the mass media's impact on American society and its basic techniques and adherence to culturally accepted responsibility.

During the semester the student will be expected to function positively in group discussions acting as a leader or participant in enlightenment or problem-solving discussions. He will be expected to criticize both the group, for effective participation, and the subject discussion in relation to procedural criteria. He also will be expected to evaluate, according to predetermined criteria, the effect of mass media on the consumer within the continuum from its origin until the present time. In his evaluation he will make use of contemporary media both as source material for evaluation and as means for presentation.

Major Divisions

	Hours Class
I. Basic Group Discussion Prodecures	6
II. The Mass Media; History	3
III. The Mass Media; the Persuasive Function	10
IV. The Mass Media; the Informative Function	10
V. The Mass Media; the Evocative Function	9
VI. The Mass Media; Responsibility	10
Total	48

I. Basic Group Discussion Procedures

A. Performance Objectives

Upon completion the student should be able to:

1. Serve as a leader in a group discussion positively functioning to encourage participation by all members
2. Organize the subject matter structures necessary for a specific group discussion
3. Participate positively in a group discussion
4. Evaluate a group discussion according to objective criteria
5. Distinguish between the criteria for a problem-solving discussion and an enlightenment discussion

B. Units of Instruction

1. The role of the leader
   a. In relation to himself
   b. In relation to the participants
   c. In relation to the subject matter
   d. In relation to the immediate environment
2. The role of the participant
   a. In relation to himself
   b. In relation to the participants
   c. In relation to the subject matter
3. The role of the evaluator
   a. In relation to the participants
   b. In relation to evaluative techniques
4. Distinctive responsibilities
   a. Enlightenment discussions
   b. Problem-solving discussions

II. The Mass Media; History

A. Performance Objectives

Upon completion the student should be able to:

1. Trace the historical origins of a specific medium such as television
2. When given two media, be able to identify the effect that one medium had upon the other at its inception
3. Identify the basic interrelationship of the media in the transmission of ideas from their origins until contemporary times

B. Units of Instruction

1. Origins
   a. Language
   b. Written communication
   c. Transmission of the written word
      (1) Manuscripts
      (2) Pamphlets
      (3) Books
      (4) Magazines
      (5) Newspapers
   d. Transmission of the spoken word

(1) Telegraph
(2) Telephone
(3) Radio
(4) Recording equipment

e. Transmission of the visual message
(1) Printing
(2) Movies
(3) Television

2. Effects of the media upon each other
a. Radio-newspapers
b. Television-radio
c. Television-newspapers
d. Television-movies
e. Books-magazines
f. Recording equipment-radio

III. The Mass Media; Persuasive Function Examined by Enlightenment Discussions

A. Performance Objectives
Upon completion the student should be able to:
1. When given a presentation of a specific medium, identify the techniques of propaganda
2. When given a propaganda presentation, identify the type of propaganda and evaluate its probable impact on the consumer
3. When given an advertisement, identify the persuasive techniques utilized to project the message
4. When given several presentations using persuasive techniques, compare the technique used to accomplish a specific purpose
5. Identify persuasive techniques which have influenced the student during a specified period of time
6. Effectively participate in group discussions to criticize the persuasive function of the mass media
7. Evaluate objectively the effectiveness of the discussions in the enlightenment of the group

B. Units of Instruction
1. Propaganda techniques
a. Political
b. Special interest groups
2. Advertising techniques
a. Commercial
b. Public service
c. Image creation
3. Evaluation of discussion techniques by criteria established in first unit
a. Participants
b. Leader
c. Subject content

IV. The Mass Media; Informative Function Examined by Enlightenment Discussions

A. Performance Objectives
Upon completion the student should be able to:
1. When given a specific presentation by formal educational media—television, movies, printed matter, recordings—identify the informative techniques used in the presentation
2. When given a variety of presentations, compare the effectiveness of the use of each in the informative function
3. When given a public service presentation by the mass media, identify the informative techniques used
4. Criticize the effectiveness of a specific public service presentation
5. When given a news presentation, criticize it in regard to slant, editorializing and objective reporting
6. Effectively participate in group discussions to criticize the informative function of mass media
7. Evaluate objectively the effectiveness of the discussions in the enlightenment of the group

B. Units of Instruction
1. Formal educational use
a. Television
(1) Public
(2) Closed circuit
b. Movies
c. Printed matter
(1) Movies
(2) Books
(3) Magazines
(4) Newspapers
d. Recordings
2. Public service function of the media
a. Documentaries
b. Interviews
c. Analyses
d. Informal instruction
3. News
a. Editorializing
b. Slanting
c. Objective reporting
4. Evaluation of discussion techniques by criteria established in first unit
a. Participants
b. Leader
c. Subject content

V. The Mass Media; Evocative Function Examined by Enlightenment Discussions

A. Performance Objectives
Upon completion the student should be able to:
1. When given a presentation, analyze it to identify the dramatic, musical, and verbal techniques used to cause consumer focus on a specific message
2. When given a presentation criticize, according to objective criteria, the evocative merit of the material
3. When given a presentation, evaluate the effect that it will have on a specific group
4. Effectively participate in a group discussion on the criticism of the evaluative function of the media
5. Evaluate objectively the effectiveness of the discussion in the enlightenment of the group

B. Units of Instruction
1. Focus
   a. Dramatic techniques
   b. Musical techniques
   c. Verbal techniques
2. Merit
3. Effect
4. Evaluation of discussion by criteria determined in first unit
   a. Participants
   b. Leader
   c. Subject content

VI. The Mass Media; Responsibility Examined by Problem-Solving Discussions

A. Performance Objectives
Upon completion the student should be able to:
1. When given a presentation by a medium, identify the responsibility theory on which it is based (i.e., laissez faire)
2. When given a presentation by a medium, identify evidences of stereotyping within the presentation
3. When given a presentation by a medium, evaluate the effect of stereotyping on the consumer
4. Identify the sources of censorship of the media
5. Evaluate the impact censorship has upon specific media
6. Participate effectively in a problem-solving discussion
7. Evaluate objectively the effectiveness of the discussion in resolving problems related to the mass media

B. Units of Instruction
1. Theories
   a. Lassez-faire
   b. Social responsibility
   c. Objective
   d. McLuhan, "Global Village"
2. Stereotyping
   a. Within the presentation of the media
   b. By the consumer
      (1) Use
      (2) Effect
3. Censorship
   a. Internal
   b. External
      (1) Pressure groups
      (2) Federal government
4. Evaluation of problem-solving discussion by criteria established in first unit
   a. Participants
   b. Leader
   c. Subject content

Texts and References

There is no definitive textbook to correspond with the outline of this course. It is suggested that analysis of the media be used as supplementary to the basic concepts developed in the printed material. Current television presentations, movies, radio broadcasts, newspapers, magazines, pamphlets, billboards and even posters and greeting cards can be used to illustrate utilization of techniques and rationale which this course is designed to criticize.

BARNOUW. *Mass Communication.*
CASTY. *Mass Media and Mass Man.*
CROSBY and BOND. *The McLuhan Explosion.*
FABUN. *Communications: The Transfer of Meaning.*
GAYELIN and CASTER. *American Media: Adequate or Not?*
INNES. *The Bias of Communication.*
McGINNIS. *The Selling of the President, 1968.*
McLUHAN. *Understanding Media.*
PACKARD. *Hidden Persuaders.*
TURABIAN. *Student's Guide for Writing College Papers.*
SUTTON and PUCKETT. *A Simple Rhetoric.*
WARRINER and GRIFFITH. *English Grammar and Composition.*
PETERSON and JENSEN. *The Mass Media and Modern Society.*
POSTMAN. *Television and the Teaching of English.*
SCHRAMM. *Responsibility in Mass Communication.*
STEINBERG. *Mass Media and Communication.*
TUCKER. *Understanding the Mass Media.*

Related Media

Bell Telephone Company, Business Office, (Contact nearest office)

Beyond All Barriers. 28 min., 16 mm., sd., color, 1964.

Encyclopaedia Britannica Films, 1150 Wilmette Avenue, Wilmette, Ill. 60091.

Newspaper Story, 17 min., 16 mm., sd., b & w., 1950.

Presidential Elections. 15 min., 16 mm., sd., b & w., 1952.

Pressure Groups. 20 min., 16 mm., sd., b & w., 1952.

Coronet Films, Coronet Building, Chicago, Ill. 60601.

Propaganda Techniques. 11 min., 16 mm., sd., color, 1962.

National Education Television Film Service, Audio-Visual Center, Indiana University, Bloomington, Ind.

Roots of Prejudice. 30 min., 16 mm., sd., color, 1964.

Where is Prejudice? 59 min., 16 mm., sd., color, 1966.

McGraw-Hill Textfilms, 330 West 42nd St., New York, N.Y. 10018.

This Is Marshal McLuhan: The Medium Is the Message. 54 min., 16 mm., sd., color, 1968.

HUMANITIES I

Hours Per Week

Class, 3

Description

This course, through a chronological survey, introduces the student to the humanities. It spans the periods from primitive to modern through the study of painting, architecture and sculpture.

By showing the past as it existed in its splendor, beauty, complexity and chaos, the student can involve himself so he may adequately know the past, understand the present and look forward to the future. Development of the student's greater self-cognizance, ability to analyze the artistic contributions of civilizations, development of aesthetic values, and awareness to community and environmental artistic resources are the objectives of this course.

Films, filmstrips, slides, audio tapes, records and field trips are an integral part of this course and should supplement the lecture material. It is suggested that students become actively involved in exploring their immediate surroundings and their community for aesthetic forms in the arts.

Major Divisions

	Hours Class
I. Introduction	2
II. The Arts of the Ancient World	10
III. The Arts of the Middle Ages	8
IV. The Arts of the Renaissance	10
V. The Arts of the Modern World	12
VI. Application and Personal Involvement	6
Total	48

I. Introduction; Defining the Humanities

A. Performance Objectives
Upon completion the student should be able to:
1. Identify the categories contained in the humanities
2. Describe the forms of art
3. Describe the difference between classical and contemporary music
4. Describe the characteristics of modern and contemporary literature

B. Units of Instruction
1. Objectives of the course
2. Forms of art
   a. Painting
   b. Architecture
   c. Sculpture
3. Music
   a. Classical
   b. Contemporary

II. Arts of the Ancient World

A. Performance Objectives
Upon completion the student should be able to:
1. Describe man's achievements during the Paleolithic, Mesolithic and Neolithic periods
2. Analyze cave art and comment on its significance to primitive man
3. Differentiate the various forms of Near Eastern art
4. Describe the characteristics of Egyptian painting
5. Identify important examples of Egyptian architecture and state characteristics of same
6. Distinguish between Doric, Ionic and Corinthian Greek orders, and draw a sample of each
7. Describe the difference between Egyptian and Greek painting
8. Describe the characteristics of Greek sculpture of the various periods
9. Describe the artistic accomplishments of the Romans during the Etruscan, Republican and Empire periods
10. Describe the difference between

Greek and Roman sculpture
11. Examine and identify examples of Roman architecture and describe their characteristics
12. Describe catacomb art
13. Illustrate the Basilica interior plan
14. Analyze and note the differences between the Latin Western church art and Byzantine art

B. Units of Instruction
1. Beginning of art
   a. Paleothic period
   b. Mesolithic period
   c. Neolithic period
2. Influence of the Ancient Near East
   a. Sumerian art
   b. Babylonian art
   c. Assyrian art
   d. Persian art
   e. Egyptian art
      (1) Old kingdom
      (2) Middle kingdom
      (3) New kingdom
3. Classical world, Greek art
   a. Architecture
      (1) Doric order
      (2) Ionic order
      (3) Corinthian order
   b. Painting
      (1) Vase painting
      (2) Frescoes
   c. Sculpture
      (1) Archaic period
      (2) Transitional period
      (3) Classical period
      (4) Hellenistic period
4. Classical world, Roman art
   a. Etruscan era
   b. Republican period
      (1) Portrait sculpture
      (2) Painting
      (3) Mosaics
   c. Empire period
      (1) Public projects
      (2) Architecture
      (3) Relief
5. Early Christian and Byzantine art
   a. Catacomb art
   b. Architecture, the Basilica
   c. Painting and mosaics
   d. The art of illumination
   e. Sculpture

III. Arts of the Middle Ages

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the characteristics of the various periods of Medieval art
2. Identify the major characteristics of Romanesque architecture
3. View the types of religious architecture of the Romanesque period and identify the various interior plans
4. View samples of religious Romanesque art and determine its significance in keeping civilization alive
5. Examine sample pictures of Gothic architecture and describe its characteristics

B. Units of instruction
1. Medieval art
   a. Migration period
   b. Carolingian period
   c. Ottonian period
2. Romanesque art
   a. Architecture
      (1) Churches
      (2) Cathedrals
      (3) Monastic houses
   b. Painting
      (1) Monastic style
      (2) Manuscript illumination
   c. Sculpture, stone
3. Gothic art
   a. Architecture
      (1) Characteristics
      (2) Representative examples
         (a) Notre Dame Cathedral
         (b) Chartres Cathedral
         (c) Others
   b. Stained glass
   c. Sculpture
   d. Painting, influence of Giotto

IV. Arts of the Renaissance

A. Performance Objectives
Upon completion the student should be able to:
1. View representative art works of the 15th Century artists and describe the style of each artist
2. View representative art works of the 16th Century and describe the style of each artist
3. State the characteristics of Renaissance art
4. View representative art works of the Baroque period and describe their characteristics
5. Identify the characteristics of Reniassance and Baroque architecture

B. Units of Instruction

1. Fifteenth Century, contributing artists
   a. Fra Angelico
   b. Van Eyck
   c. Donatello
   d. Ghiberti
   e. Others
2. Sixteenth Century, contributing artists
   a. da Vinci
   b. Michelangelo
   c. Raphael
   d. Titian
   e. Others
3. Baroque period, contributing artists
   a. Bernini
   b. El Greco
   c. Rubens
   d. Hals
   e. Velasquez
   f. Rembrandt
   g. Others
4. Architecture
   a. Religious
   b. Civic

V. Arts of the Modern World

A. Performance Objectives
   Upon completion the student should be able to:
   1. Describe 19th Century art movements and identify the characteristics of each
   2. Describe 20th Century art movements and identify the characteristics of each
   3. Develop a diagram illustrating the origin and development of modern architecture
   4. Identify the characteristics of modern sculpture

B. Units of Instruction
   1. Nineteenth century
      a. Romanticism
      b. Realism
      c. Impressionism
      d. Post-impressionism
   2. Twentieth Century
      a. Fauvism
      b. Cubism
      c. Futurism
      d. Dada
      e. Surrealism
      f. Expressionism
      g. Abstract expressionism
      h. Op-art
      i. Pop art
      j. Environmental art
   3. Modern architecture
      a. Louis Sullivan, art noveau
      b. Frank Lloyd Wright, organic architecture
      c. Le Corbusier, international style
      d. Walter Gropius—Bauhaus design
   4. Modern sculpture
      a. Barlach
      b. Brancusi
      c. Calder
      d. Moore
      e. Others

VI. Application and Personal Involvement

A. Performance Objectives
   Upon completion the student should be able to:
   1. Visit local museums and analyze and compare representative art works of the various periods
   2. View contemporary art works and compare various artists' media approaches in treating a subject or idea
   3. Visit various areas of his community and compare styles with classical characteristics
   4. Photograph representative samples of community architecture; business, industrial, institutional, civic, religious and residential, and analyze the functional and decorative qualities
   5. Evaluate progress and results obtained in Units I through V

B. Units of Instruction
   1. Individual student projects
      a. Planning
      b. Execution
   2. Explanation of projects to groups or class
   3. Evaluation

Texts and References

BAUR. *Revolution and Tradition in Modern American Art.*
CLARK. *Civilization.*
CLEAVER. *Art, An Introduction.*
DE LA CROIX *and* TANSEY. *Art Through the Ages.*
DE LONG. *Art in the Humanities.*
DUDLEY *and* FARICY. *The Humanities.*
GOMBRICH. *The Story of Art.*
HAUSER. *The Social History of Art.*
JANSON *and* KERMAN. *A History of Art and Music.*
MUNRO. *The Encyclopedia of Art.*
ROSE. *American Art Since 1900.*
SEDWICK. *Discovering Modern Art.*
SYPHER. *Art History, An Anthology of Modern Criticism.*

Related Media

Encyclopaedia Britannica Educational Corp., Wilmette, Ill. 60091.

Humanities, What Are They? 28 min., 16 mm., sd., color.

Eye Gate House, Inc., 146-01 Archer Avenue, Jamaica, N.Y. 11435.

Images and Imagination: Seeing Creativity, 35 min., filmstrip, set of 4 filmstrips, sd., color.
"Reflections of New York"
"Sidewalks"
"The Strange Country"
"The Picture Window"

Learning Corporation of America, 711 Fifth Avenue, New York, N.Y. 10022.

Western Civilization: Majesty and Madness, series of 10 films, approx. 25 min. each, 16 mm., sd., color.

Time-Life Films, 43 West 16th Street, New York, N.Y. 10011.

Civilization, series of 13 films, 52 min. each, 16 mm., sd., color.
"Grandeur and Obedience"
"Heroic Materialism"
"Man– the Measure of All Things"
"Protest and Communication"
"Romance and Reality"
"The Fallacies of Hope"
"The Frozen World"
"The Great Thaw"
"The Hero as Artist"
"The Light of Experience"
"The Pursuit of Happiness"
"The Smile of Reason"
"The Workshop of Nature"

Frank Lloyd Wright (Architecture), 30 min., 16 mm., sd., b & w.

I Think in Shapes (Henry Moore– Sculpture) 31 min., 16 mm., sd., color.

Warren Schloat Productions, Inc., Pleasantville, N.Y. 10570.

Lives of the Old Masters, 35 mm., filmstrip, set of 5 filmstrips, sd., color.
"El Greco"
"Goya"
"Michelangelo"
"Rembrandt"
"Van Gogh"

The Art of Seeing, 35 mm., filmstrip, set of 6 filmstrips, sd., color.
"Color"
"How to Use Your Eyes"
"Lines"
"Shapes"
"Space"
"The Art of Seeing"

HUMANITIES II

Hours Per Week

Class, 3

Description

This course is a continuation of "Humanities I." It covers the fundamentals and the development of music from ancient to contemporary times. It also includes modern and contemporary literature.

Since the purpose of this course is to guide the listener in his search for musical understanding and enjoyment, it may be helpful to begin with the fundamental concepts of music followed by contemporary music and then work in chronological order. A student's enthusiasm may be greatly enhanced in this course if his current contact with music is enforced and made relevant in the beginning of the course.

One of the prime considerations of "Humanities II" is listening to music. Therefore, a representative number of recordings is essential to effective instruction. Informative illustrations, visual aids and diagrams should be incorporated to stimulate student interest.

The final portion of this humanities course offers an exposure to various literary forms of the modern and contempory era. Through contact with literary works the student can have another avenue to express his attitudes and feelings and to develop sensitivity.

Major Divisions

	Hours Class
I. Fundamental Concepts of Music	4
II. Music of the Ancient World	2
III. Music of the Middle Ages	2
IV. Music of the Renaissance	4
V. Music of the Modern World	10
VI. Modern and Contemporary American Literature	12
VII. Application and Personal Involvement	12
Total	48

I. Fundamental Concepts of Music

A. Performance Objectives
Upon completion the student should be able to:
1. Recognize the elements of music (rhythm, melody, harmony and tone

color) by identifying them in representative samples of music
2. Describe the four groupings of musical instruments
3. Recognize the sounds of the various musical instruments by identifying them in representative works of music

B. Units of Instruction
1. Elements of music
a. Rhythm
b. Melody
c. Harmony
d. Tone color
2. Musical instruments
a. String instruments
b. Wind instruments
c. Percussion instruments
d. Independent instruments

II. Music of the Ancient World

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the instruments used in early music
2. Listen to early Christian music and define the Gregorian chant and monophony

B. Units of Instruction
1. Greek music
a. Early vocal
b. Early instrumental
c. Pythagoreanism
2. Early Christian music
a. The early Mass
b. Gregorian chant (plainsong)

III. Music of the Middle Ages

A. Performance Objectives
Upon completion the student should be able to:
1. Identify and describe the various forms of early Medieval music
2. Listen to representative samples of polyphonic music and describe it
3. Describe the characteristics and accomplishments in Gothic music

B. Units of Instruction
1. Early Medieval music
a. The plainsong
b. The conductus
c. The versus
d. The sequentia
2. Romanesque music, advanced polyphony
3. Gothic music, refinement of rhythm

IV. Music of the Renaissance

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the differences between sacred and secular music
2. Listen to some examples of opera music and describe the types
3. Compare the music of a representative number of Baroque composers, determine the differences in their music and state their contributions

B. Units of Instruction
1. Renaissance style
a. Sacred music
b. Secular music
2. Baroque style
a. Opera
b. Other vocal music
c. Instrumental music
d. Musical contributors
(1) Monteverdi
(2) Vivaldi
(3) Bach
(4) Others

V. Music of the Modern World

A. Performance Objectives
Upon completion the student should be able to:
1. Listen to some representative music of the classical style and determine the progress in orchestral music
2. Describe the major contributions toward musical style during the classical period
3. State the major contributions of a representative number of classical composers
4. Define abstract and program music
5. Determine the contributions of the Romantic composers
6. Describe the various kinds of contemporary music and identify its characteristics

B. Units of Instruction
1. Classical style
a. Chamber music and instruments
b. Orchestral music and instruments
c. Musical contributors

(1) Mozart
(2) Haydn
(3) Beethoven
(4) Others

2. Romantic style
   a. Opera
   b. Abstract music
   c. Program music
   d. Musical contributors
      (1) Schubert
      (2) Berlioz
      (3) Chopin
      (4) Mendelssohn
      (5) Schumann
      (6) Others
3. Contemporary style
   a. Jazz, schools of jazz
   b. Experimental music, Stravinsky, others
   c. Electronic music, Babbitt, others
   d. Computer music
   e. Other

VI. Modern and Contemporary American Literature

A. Performance Objectives
Upon completion the student should be able to:
1. Read various kinds of modern and contemporary American literature and define novel, short story, poem and play
2. Describe the significance of each form of literature
3. Analyze a representative number of literary works and describe how they relate to life

B. Units of Instruction
1. Novel
2. Short Story
3. Poems
4. Plays
5. Other

VII. Application and Personal Involvement

A. Performance Objectives
Upon completion the student should be able to:
1. Attend area concerts and/or listen to representative recordings and compare various classical selections with contemporary works
2. Analyze the elements of music and cite the characteristics of each
3. Identify various musical forms
4. Describe the characteristics of classical and contemporary music
5. Evaluate progress and results attained in 1 through 4
6. Write a short story, poem or play and read or act it out to the class

B. Units of Instruction
1. Individual student projects
   a. Planning
   b. Execution
2. Explanation of projects to class groups or class
3. Evaluation

Texts and References

ALTENBERND. *Exploring Literature.*
BANTA *and* SATTERWHITE. *Discovery and Response.*
COPLAND. *What to Listen for in Music.*
DE LISLE *and* OTHERS. *The Personal Response to Literature.*
GOULD *and* KIEFER. *The Western Humanities.*
MESSEROLE *and OTHERS, ED. American Literature Tradition and Innovation.*
SIMONSON. *Trio: A Book of Stories, Plays and Poems.*
ULRICH. *Music: A Design for Listening.*
ULRICH *and* PISK. *A History of Music and Musical Style.*
WALTER. *Men and Music in Western Culture.*

Related Media

Listening Library, 1 Park Avenue, Old Greenwich, Conn. 06870.

An Audio-Visual History of Jazz, 35 mm., filmstrip, set of 4 filmstrips, sd., color.
"Chicago—Golden Age of Jazz"
"From Be-bop Till Today"
"New Orleans—Birth of Jazz"
"The Years When Swing was King"

An Audio-Visual History of Music, 35 mm., filmstrip, set of 8 filmstrips, sd., color.
"Early Romanticism"
"From the Beginnings Through the Middle Ages"
"Into the Twentieth Century"
"Later Romanticism"
"Music of Our Time"
"The Age of Baroque"
"The Classical Age"
"The High Renaissance"

Recommended Listening (Music)

BACH: "Mass in B Minor"; Steber, Elias, Verreau, Cross; Ormandy, Philadelphia Orchestra; Columbia Records.

BEETHOVEN: "Moonlight Sonata"; Horowitz; Victor Records.

BEETHOVEN: "Ninth Symphony"; Bernstein, New York Philharmonic Orchestra; Columbia Records.

CHOPIN: "Polonaises" (selections); Frankl; Vox Records.

COPLAND: "Appalachian Spring"; Copland, Boston Symphony Orchestra; Victor Records.

DEBUSSEY: "La Mer"; Szell, Cleveland Orchestra; Epic Records.

GERSHWIN: "Porgy and Bess" (selections); Original Sound Track; Columbia Records.

HANDEL: "Messiah"; Sutherland, Bumbry, McKellar, Ward; Boult, London Symphony; London Records.

LISZT: "Hungarian Rhapsody Number Two"; Paderewski; Arc Records.

MENDELSSOHN: "Midsummer Night's Dream"; Kempe, Royal Philharmonic; Seraphim Records.

MONTEVERDI: "Madrigals"; Antonellini, Rome Polyphonic; Victor Records.

MOZART: "Concerto (25) for Piano and Orchestra"; Rubinstein, Wallenstein, RCA Victor Symphony; Victor Records.

PUCCINI: "La Boheme"; Moffo, Tucker, Merrill; Leinskorf, Rome Opera; Victor Records.

RACHMANINOFF: "Rhapsody on a Theme by Paganini"; Rubinstein, Reiner, Chicago Symphony; Victor Records.

RAVEL: "Bolero"; Bernstein, New York Philharmonic Orchestra; Columbia Records.

RIMSKY-KORSAKOV: "Scheherazade"; Stokowski, London Symphony; London Records.

SCHUBERT: "Symphony #8 Unfinished"; Ormandy, Philadelphia Orchestra; Victor Records.

STRAUSS, J.: "Die Fledermaus"; Danon, Vienna State Opera Orchestra; RCA Victor Records.

STRAVINSKY: "Petrouchka"; Stravinsky, Columbia Symphony Orchestra; Columbia Records.

WAGNER: "Tannhauser Overture"; Bernstein, New York Philharmonic Orchestra; Columbia Records.

CULTURE AND SOCIETY

Hours Per Week

Class, 3

Description

This is a course in the application of basic social science fact and theory to significant aspects and problems of contemporary society. The major educational goal of this course is to improve the student's efficacy in analyzing social phenomena. Through the process and challenge of scientific observation to the analysis of social behavior, the student will be able to meet present and future challenges in everyday living more effectively.

This course contains a good deal of substantive content. However, the essential emphasis is on the development of the student's capacity to work with fundamental processes: the use of speculation and hypotheses, formulation of theoretical models; and logical and intuitive reasoning.

Course objectives include a knowledge of the main features of American society and the ability to analyze and interpret human behavior, the nature of society and culture, social and cultural change, communities, family life, social stratification, group interaction and race relations.

Major Divisions

	Hours Class
I. Sociology and Scientific Research	6
II. Culture	10
III. Culture and Personality	10
IV. Social Organization	8
V. Social Interaction	8
VI. Social and Cultural Change	6
Total	48

I. Sociology and Scientific Research

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the various means man has used in his search for truth
2. Describe and explain the basic techniques of scientific investigation
3. Relate some of the difficulties in applying the scientific method to social and cultural phenomena
4. Demonstrate the ability to recognize unstated assumptions
5. Distinguish factual from inferential statements
6. Utilize skills of inquiry
7. Employ the scientific method as it applies to sociology in the analysis and possible solution of various social problems

B. Units of Instruction
1. Characteristics of scientific knowledge
2. Techniques of scientific research
3. Methods of sociological research

II. Culture

A. Performance Objectives
Upon completion the student should be able to:
1. Recognize organizational patterns pertaining to cultural systems
2. Specify and comprehend the relationship between social authority and individual liberty
3. Describe and analyze cultural symbols
4. Ascertain the difference between core values and alternatives
5. Differentiate between the roles of customs and beliefs
6. Describe and analyze cultural norms, mores and folkways
7. Explain and give examples of cultural relativity

B. Units of Instruction
1. Nature and function of culture
2. Characteristics of culture
3. Culture and social interaction
4. Culture as a system of norms
5. Nature of culture patterns
6. Cultural relativism
7. Culture and human adjustment

III. Culture and Personality

A. Performance Objectives
Upon completion the student should be able to:
1. Interpret the dynamic interrelationship between culture, personality and society
2. Describe and explain the interrelationships of hereditary and environmental factors which influence the developing personality of the individual
3. Develop criteria to analyze the interrelationship between patterns of behavior and the process of conditioning
4. Describe and explain the socialization process
5. Develop and assess criteria for judgment appropriate to the analysis of various personality theories

B. Units of Instruction
1. Structural basis of personality
2. Personality and social interaction
   a. Socialization process
   b. Social self
3. Personality and social structure
   a. Social roles
   b. Dynamics of social roles
   c. Ascribed and achieved status
   d. Cultural participation and personality
   e. Cultural conflict and personality
   f. Social status and personality

IV. Social Organization

A. Performance Objectives
Upon completion the student should be able to:
1. Analyze social behavior in terms of primary groups, secondary groups and reference groups
2. Ascertain, categorize and interpolate man's social experience in terms of social learning, social group development and organization, and social roles and expectations
3. Select, systematize and examine data pertaining to patterns of stratification
4. Describe and explain the development of bureaucratic institutions
5. Relate sources for changing family patterns
6. Describe and analyze the significance of social class in American society

B. Units of Instruction
1. Groups and associations
   a. The group and the individual
   b. Major group classifications
   c. Group norms
      (1) Roles and role expectations
      (2) Normative aspects of group expectations
      (3) Deviations from the norms
      (4) Folkways, mores and group sanctions
2. Social institutions
   a. Nature and function of social institutions
   b. Interaction of social institutions
   c. Bureaucracy and social institutions
   d. Disfunctions of bureaucracy
   e. Cycles of institutional change
3. The family
   a. Structure and function of the family
   b. Changing family patterns
   c. The family in relation to other social institutions
   d. Future of the family
4. Social class
   a. Nature of social class
   b. Significance of social class
   c. Class attitudes toward social institutions
   d. Characteristics of social mobility
      (1) Differential attitudes toward

social mobility
(2) Channels of social mobility
(3) Techniques of social climbing
e. Differences in stratification patterns

V. Social Interaction

A. Performance Objectives
Upon completion the student should be able to:
1. Identify, analyze and determine possible solutions for intergroup antagonisms and conflicts in society
2. Explain man's social experience in terms of social interaction
3. Develop criteria for the analysis of collective behavior, institutional behavior and social movements
4. Describe and analyze problems of the metropolitan area
5. Identify future trends for urban society

B. Units of Instruction
1. Social processes
a. Nature of social processes
b. Various alternatives
c. Boundary maintenance
2. Race and ethnic relations
a. Scientific view of race differences
b. Patterns of ethnic relationships
c. Minority reactions to dominant groups
d. Race and social interaction
e. Prejudice and social structure
f. Changing ethnic relations
3. Collective behavior
a. Nature of collective behavior
b. Crowds, publics and public behavior
c. Social unrest and collective behavior
d. Social movements as collective behavior
e. Role of ideology and propaganda
4. The community
a. Nature and function of the community
b. The rural and urban community
c. Problems of the metropolitan area
d. Trends of urban society

VI. Social and Cultural Change

A. Performance Objectives
Upon completion the student should be able to:
1. Develop criteria for the analysis of social and cultural change
2. Analyze the process of cultural accumulation, convergence, diffusion and integration
3. Determine and assess the effects of technological and scientific advances on the American culture

B. Units of Instruction
1. Nature of social and cultural change
2. Sources of social and cultural change
3. Resistance and acceptance of social change
4. Integration of new cultural elements
5. Planning for change

Texts and References

BERELSON *and* STEINER. *Human Behavior.*
BIERSTEDT. *The Social Order.*
BIESANZ, J. *and* BIESANZ, M. *Introduction to Sociology.*
BROOM *and* SELZNICK. *Sociology.*
DRESSLER. *Sociology: The Study of Human Interaction.*
GORMAN. *Social Themes.*
HORTON *and* JUNT. *Sociology.*
LUNDBERG *and* OTHERS. *Sociology.*
MERRILL. *Society and Culture.*
ROSE. *Sociology: The Study of Human Relations.*
WILSON. *Sociology: Rules, Roles and Relationships.*

SUPPLEMENTARY READING LIST

BENEDICT. *Patterns of Culture.*
BENSMAN. *Dollars and Sense.*
BROWN. *Understanding Other Cultures.*
CLEAVER. *Soul on Ice.*
COHEN. *The Drug Dilemma.*
"Mass Culture and Mass Media," *Daedalus.*
DENTLER. *American Community Problems.*
ERLICH. *The Population Bomb.*
GOFFMAN. *The Presentation of Self in Everyday Life.*
GOODMAN. *Growing Up Absurd.*
GRIER *and* COBBS. *Black Rage.*
HARRINGTON. *The Other America.*
KENISTON. *The Uncommitted: Alienated Youth in American Society.*
KLUCKHOLM. *Mirror for Men.*
KOMAROVSKY. *Blue Collar Marriage.*
LEWIS. *A Death in the Sanchez Family.*
MACK. *Prejudice and Race Relations.*
MARCUSE. *Reason and Revolution.*
MAYER *and* BUCKLEY. *Class and Society.*
MEAD. *Sex and Temperament in Three Primitive Societies.*
MERRILL. "The Self and the Other: An Emerging Field of Social Problems," *Social Problems.*
MINER. "Body Ritual Among the Nacirema," *American Anthropologist.*
MORRIS. *The Naked Ape.*
SCHERMERHORN. *Society and Power.*
SHERIF. *The Psychology of Social Norms.*
SILBERMAN. *Crisis in Black and White.*
SIMMONS. *Deviants.*
SYKES. *Crime and Society.*
THOMAS. *The Harmless People.*

"The Hippus: Philosophy of a Subculture," *Time*.
WEAVER, G. *and* WEAVER, J. *The University and Revolution.*
WHITE. *The Evolution of Culture.*
WHYTE. *Street Corner Society.*
WHYTE. *The Organization Man.*
ZAMIATIN. *We.*
Scientific American Offprints, 660 Market St., San Francisco, Calif. 94104.
433. BETTELHEIM *and* JANOWITZ. *Prejudice.*
444. OPLER. *Schizophrenia and Culture.*
602. SANLINS. *The Origin of Society.*
623. HYMAN *and* SHEATSLEY. *Attitudes Toward Desegregation.*
634. LEIGHTON. *Poverty and Social Change.*
631. LEWIS. *The Culture of Poverty.*
637. WASKOW. *The Shelter-Centered Society.*
633. COMER. *The Social Power of the Negro.*
638. CAPLAN *and* PAIGE. *A Study of Ghetto Rioters.*

Related Media

Indiana University, Audio-Visual Center, Bloomington, Ind.

The Angry Negro. 30 min., 16 mm., sd., b & w.
Summary: Examines opinions of Negro leaders as to the way the Negro should operate in his search for equality.

Behavior Theory in Practice: Experiments in Operant Behavior. 21 min., 16 mm., sd., color.
Summary: Deals with a variety of types of behavior—respondent, operant conditioning and extinction.

Children Without. 29 min., 16 mm., sd., b & w.
Summary: Portrays problems of children of the inner city.

Conflict. 18 min., 16 mm., sd., b & w.
Summary: Examines a series of routine conflict situations faced by a college student.

Conformity. 48 min., 16 mm., sd., b & w.
Summary: Presents various examples of everyday conformity.

Cultural Patterns of Marital Sanction. 30 min., 16 mm., sd., b & w.
Summary: Employs dance routines and scored music to portray differences in marriage rituals of three societies.

The Family. 29 min., 16 mm., sd., b & w.
Summary: Discusses changes taking place in the structure of the family.

McGraw-Hill, 828 Custer Ave., Evanston, Ill. 60202.

The Annanacks. 29 min., 16 mm., sd., color.
Summary: Deals with change in an Eskimo society over a period of years.

Nanook of the North. 55 min., 16 mm., sd., b & w.
Summary: Report on the unchanging nature and hardships of the Eskimo.

Farrebique. 100 min., 16 mm., sd., b & w.
Summary: A recorded tapestry on a French peasant family.

Stones of Eden. 25 min., 16 mm., sd., color.
Summary: The way of life of an Afghan farm family.

Dead Birds. 83 min., 16 mm., sd., color.
Summary: A documentary which pictures tribal life in western New Guinea. The ideology of this society and the role individual members play unfolds as you live with them over a period of several months.

The Hunters. 72 min., 16 mm., sd., color.
Summary: A documentary on the primitive culture of the bushman of southwest Africa.

In Search of Myself. 30 min., 16 mm., sd., b & w.
Summary: Relates the complex problems of people of emerging nations.

Ask Me Don't Tell Me. 22 min., 16 mm., sd., b & w.
Summary: A film relating some causative factors of juvenile delinquency.

Alcoholism and the Family. 28 min., 16 mm., sd., color.
Summary: Relates how many problems emerge in a family when the father resorts to alcoholism.

People by the Billions. 28 min., 16 mm., sd., b & w.
Summary: This film deals with the population problem in many countries bringing out the complexity of the situation.

Illegal Abortion. 28 min., 16 mm., sd., b & w.
Summary: A dramatized film illustrating the social and emotional problems of a couple faced with an unwanted pregnancy.

Still a Brother. 90 min., 16 mm., sd., b & w.
Summary: An incisive documentary pertaining to the Negro middle class.

A Time for Burning. 58 min., 16 mm., sd., b & w.
Summary: A powerful portrait of the American conscience struggling with the tensions created by the revolution in racial relationships.

The War Game. 49 min., 16 mm., sd., b & w.
Summary: This film considers what can happen in a nuclear attack on a country.

The City. 55 min., 16 mm., sd., b & w.
Summary: A documentary film presenting the problem of city planning.

Courtship and Marriage. 60 min., 16 mm., sd., b & w.
Summary: This film examines courting customs in Sicily, Iran, Canada and India.

The Top. 8 min., 16 mm., sd., color.
Summary: This film has as its theme the attainment of material success.

Willie Catches On. 24 min., 16 mm., sd., b & w.
Summary: This film deals with prejudice.

Time-Life Films, 43 West 16th St., New York, N.Y. 10011.

Cathy Come Home. 78 min., 16 mm., sd., b & w.
Summary: This film portrays the disintegration of a family under economic stress.

Stress-- A Disease of Our Time. 35 min., 16 mm., sd., color.
Summary: Discusses various stress situations emerging in our complex world.

GENERAL PSYCHOLOGY

Hours Per Week

Class, 3

Description

This course is concerned with the development of a more comprehensive and accurate understanding of human behavior. In order to achieve this goal the student must become cognizant of fundamental psychology concepts as manifested through the discipline by means of the scientific approach. Hence, it becomes imperative that the information acquired by the student should enhance his awareness of himself and his world. He must develop the competencies for dealing with his problems as well as coming to grips with his needs for getting along in society and for carrying out his individual purposes.

The instructor should endeavor to involve students in psychological demonstrations so that they may gain a more complete understanding of the discipline. Many demonstrations may be designed by the instructor or obtained from various psychological workbooks which require virtually no apparatus. These sources are listed in the bibliography.

Major Divisions

	Hours Class
I. Introduction	3
II. Human Development	6
III. Basic Processes in Behavior	12
IV. Individual Differences	6
V. Emotional Factors in Behavior	9
VI. Social Factors in Behavior	6
VII. Applying Psychology to Human Problems	6
Total	28

I. Introduction

A. Performance Objectives
Upon completion the student should be able to:
1. Describe in writing the biological bases of childhood behavior
2. Explain and expand the basic concept of the way a human being develops through the continuing interaction of heredity and environment
3. Describe in writing the methodology of the scientific approach to problems

B. Units of Instruction
1. Historical review
2. Psychology today
3. Psychology as a behavioral science

II. Human Development

A. Performance Objectives
Upon completion the student should be able to:
1. Given a list of alternatives, identify the biological basis of childhood behavior
2. Explain and expand the basic concept of the way a human being develops through the continuing interaction of heredity and environment
3. List several social implications of personality development
4. Identify the beginning stages of learning from a list of alternatives
5. Given alternatives, identify maturity by physical development
6. Given alternatives, identify maturity by cognitive development
7. Determine, by testing, the psychological needs of the individual
8. From observations of a random population, describe in writing visible psychological relationships between adults and children
9. Define adolescence and adulthood in regard to psychological, social and physical development

B. Units of Instruction
1. Infancy and childhood
   a. Biological bases of childhood behavior
      (1) Genetic background
      (2) Beginnings of learning
   b. Social development
      (1) Social learning
      (2) Development of personality
      (3) Consistency in childhood behavior patterns

c. Directions of development
(1) Physical development
(2) Relations with others
d. Cognitive development
e. Psychological needs of children
(1) Maslow's Hierarchy of Needs
(2) Applications of basic need theory
f. Relationships between adults and children
(1) Developmental problems (early childhood)
(2) Developmental problems (middle and later childhood)

2. Adolescence and adulthood
a. Psychological needs and tasks (adolescence)
(1) Basic needs
(2) Higher level needs
b. Physical development
(1) Early and late maturers
(2) Changes
c. Social development
(1) Relations with parents and peers
(2) Independence
d. Emotional development
(1) Awareness of others
(2) Self-concern
(3) Anxiety and sex roles
e. Psychological needs and tasks (adulthood)
(1) Basic needs
(2) Developmental tasks
f. Marriage and the family

III. Basic Processes in Behavior

A. Performance Objectives
Upon completion the student should be able to:
1. Define classical and operant conditioning
2. Given a list of situations where conditioning has or will occur, identify the conditioning as either classical or operant
3. Identify and explain in writing the steps in the learning process
4. Compare and contrast, in writing, the various types of learning
5. Describe, in writing, methods of assessing how learning may be inferred
6. Describe, in writing, various forms of reinforcements, discrimination and imprinting
7. Given alternatives, identify factors which affect efficiency of acquisition
8. Given alternatives, identify the basic components of the central nervous system
9. Describe, in writing, the relationship of neurons and nerve transmissions
10. Assess, in writing, the physiological aspects of sensation to the human organism
11. Assess, in writing, the physiological aspects of response
12. Given a list of muscles, identify each as either voluntary or involuntary with regard to operation
13. Examine and describe, in writing, various ways in which we learn to perceive
14. Analyze, in writing, several principles of perception in order to understand and predict behavior
15. Given alternatives, identify sensory factors in perception
16. Define the perceptual processes in human behavior
17. List the factors wh[illegible] influence perception
18. Analyze by observation the internal forces underlying behavior
19. Describe, in writing, the internal forces underlying behavior
20. Given a list of behavior "drives", identify each as biological, psychological or social
21. Compare and contrast, in writing, primary motives with secondary motives
22. Explain, in writing, several theories of motivation
23. Define emotion and its relationship to motivation
24. Explain, in writing, several theories of emotion
25. Describe, in writing, several varieties of emotion
26. From a list of alternatives citing emotional behavior, identify each as either a physiological aspect or a maturational characteristic

B. Units of Instruction
1. Learning
a. Learning defined
b. Classical conditioning
c. Instrumental or operant conditioning
d. Reinforcement
(1) Secondary reinforcement
(2) Extinction
(3) Spontaneous recovery
(4) Generalization

(5) Discrimination
(6) Imprinting
e. Factors affecting efficiency of acquisition
(1) Meaningfulness
(2) Whole versus part learning
(3) Forgetting
2. Neutral aspects of behavior
a. The nervous system
b. Physiological aspects of sensation
(1) Vision
(2) Hearing
(3) Smell
(4) Taste
(5) Skin senses
c. Physiological aspects of response
(1) Voluntary muscles
(2) Involuntary muscles
d. Physiological basis of higher mental processes
(1) Learning
(2) Memory
(3) Attention
3. Perception
a. General principles
(1) Threshold
(2) Gestaltist Concept
(3) Behavioristic principles
b. Sensory factors in perception
c. Perceptual processes in human behavior
(1) Depth perception
(2) Illusions
(3) Subliminal perception
(4) Sensory deprivation
(5) Extrasensory perception
d. Factors influencing perception
(1) Attention
(2) Set
4. Motivation and human motives
a. Primary motives
(1) Homeostasis
(2) Elimination
(3) Sex
(4) Sleep
(5) Hunger
(6) Thirst
(7) Fear and anger
(8) Pain avoidance
(9) Aggression
(10) Pleasure
b. Secondary motives
(1) Social motives
(2) Achievement motivation
c. Special characteristics of motives
(1) Satisfactions
(2) Habits
(3) Unconscious motivations
d. Theories of motivation
(1) Cognitive dissonance
(2) Global theories of motivation
5. Emotion and emotional behavior
a. Emotion defined
b. Emotion and motivation
c. Theories of emotion
d. Varieties of emotion
e. Physiological aspects of emotional behavior
f. Maturation of emotional behavior

IV. Individual Differences

A. Performance Objectives
Upon completion the student should be able to:
1. List several means of measuring individual differences
2. Describe, in writing, the statistics of inferences
3. Evaluate and interpret, in writing, individual test scores by the use of statistics
4. Describe, in writing, the nature of intelligence and mental testing
5. Describe, in writing, the changes that can occur in intelligence over time
6. Explain, in writing, the nature of creativity and the means of measuring it

B. Units of Instruction
1. Statistics and measurement
a. Measuring individual differences
b. Statistics of inference
c. Using statistics to evaluate tests
2. Intelligence and creativity
a. Mental testing
b. Nature of intelligence
c. Heredity and environment as factors in intellectual functioning
d. Changes in intelligence
e. Nature and measurement of creativity

V. Emotional Factors in Behavior

A. Performance Objectives
Upon completion the student should be able to:
1. Define the concepts of personality
2. Given a list of alternatives, identify the concepts of personality
3. Describe, in writing, several psychological theories in regard to personality
4. Identify, by listing, several methods of

measuring personality
5. Given a list of alternatives, identify the possible outcomes of measuring personality
6. Analyze and describe, in writing, the relationship of various aspects of mental mechanism to behavior
7. Compare and contrast, in writing, neurosis and psychosis
8. Given alternative behavior patterns, identify those which would be diagnosed as psychotic
9. Describe, in writing, several approaches to psychotherapy

B. Units of Instruction
1. Personality
   a. Psychological theories
      (1) Structural theories
      (2) Psychoanalytic theories
      (3) Self theories
      (4) Trait theories
   b. Measurement of personality
2. Personal adjustment
   a. Mental mechanisms
   b. Patterns of adjustment
   c. Neurotic patterns of behavior
   d. Psychotic patterns of behavior
      (1) Schizophrenia
      (2) Paranoid disturbances
      (3) Affective psychoses
      (4) Organic psychoses
   e. Psychotherapy

VI. Social Factors in Behavior

A. Performance Objectives

Upon completion the student should be able to:
1. List relationships that can exist between the individual and the group
2. Describe, in writing, the self-concept in relationship to the group
3. Given alternatives, identify the means by which society assists in shaping personality
4. Describe, in writing, the characteristics of groups
5. Explain, in writing, the significance of social class on behavior
6. Explain, in writing, the significance or role of communication as an essential human process
7. Describe, in writing, the relationship between stereotyping and communication
8. Describe, in writing, symbolic interaction
9. List several types of groups and their characteristics
10. Describe, in writing, the factors related to group effectiveness
11. Describe, in writing, the various types of leadership in relation to group structure
12. List, from observation, characteristics of members in a group in regard to interaction, personality differences
13. Describe, in writing, the major principles of group dynamics

B. Units of Instruction
1. The social matrix of individual behavior
   a. The self and the group
   b. Masculinity and femininity
   c. Social shaping of personality
   d. Characteristics of groups
      (1) Social norms
      (2) Roles
      (3) Reference groups
   e. Social class
      (1) Status
      (2) Social stratification in modern society
2. Communication
   a. Levels of communication
   b. Stereotypes in communication
   c. Feedback
   d. Symbols
3. Group processes
   a. Types of groups
   b. Factors related to group effectiveness
      (1) Group morale
      (2) Group cohesiveness
   c. Leadership
   d. Competition and cooperation
   e. Group structure

VII. Applying Psychology to Human Problems

A. Performance Objectives

Upon completion the student should be able to:
1. Describe the individual in his various roles in relation to other members of the family
2. List the several responses that an individual may elicit to overcome feelings of hostility and aggression
3. Explain, in writing, the role of communication as it is essential to the functioning of the individual as a family member
4. Given a list of various types of drugs,

indicate in writing, primary characteristic reactions to each
5. List several significant ways in which education benefits the individual in his ability to determine and fulfill his vocational expectations
6. Describe, in writing, what is meant by occupational role interaction
7. List several consequences or effects on the individual that result from work dissatisfaction
8. Describe several attitudes which are beneficial to the individual serving in a management capacity and also as a subordinate to another manager

B. Units of Instruction
1. Practical applications to human relations
   a. Interests
   b. Family roles
   c. Trust in others
   d. Hostility and aggression
   e. Drugs
2. Practical applications to vocations
   a. Education and vocation
   b. Occupational roles
   c. Work satisfaction and dissatisfaction
   d. Supervision and management

Texts and References

ADCOCK. *Fundamentals of Psychology.*
COX. *Psychology.*
CRM PUBLICATIONS. *Psychology Today: An Introduction.*
————. *Involvement in Psychology Today.*
————. *Readings in Psychology Today.*
DEMBER *and* JENKINS. *General Psychology: Modeling Behavior and Experience.*
FERNALD, D. *and* FERNALD, P. *Overview of General Psychology: A Basic Program.*
HERSHEY *and* LUGO. *Living Psychology: An Experimental Approach.*
HILGARD *and* ATKINSON. *Introduction to Psychology.*
KRECH, DRUTCHFIELD *and* LIVSON. *Elements of Psychology.*
MUNN, FERNALD, D. *and* FERNALD, P. *Basic Psychology.*
RUCH. *Psychology and Life.*
SARTAIN, NORTH, STRANGE *and* CHAPMAN. *Psychology: Understanding Human Behavior.*
BROWN PUBLISHERS. *Introduction to General Psychology: A Self-Selection Textbook.*
WRENCH. *Psychology: A Social Approach.*
WRIGHT, TAYLOR, DAVIES, SLUCKIN, LEE *and* REASON. *Introducing Psychology: An Experimental Approach.*

SUPPLEMENTARY READING LIST

BERNARD. *Adolescent Development in American Culture.*
DYAL. *Readings in Psychology.*
ERICKSON. *Childhood and Society.*
————. *Identity: Youth and Crisis.*
ESPER. *History of Psychology.*
EYSENNCK. *Sense and Nonsense in Psychology.*
GUTHRIE. *Psychology in the World Today.*
HAVES. *The Ape in Our Home.*
HOLL *and* SKINNER. *The Aanlysis of Behavior.*
LINTON. *The Cultural Background of Personality.*
MCKINNEY. *Psychology in Action.*
MULLAHY. *Oedipus: Myth and Complex.*
SCOTT, FORESMAN *and* CO. *Confrontation: Psychology and Problems of Today.*
SKINNER. *Walden Two.*
WOODSWORTH *and* SHEEHAN. *Contemporary Schools of Psychology.*

Related Media

Carousel Films, Inc., 1501 Broadway, New York, N.Y. 10036.

Learning and Behavior. 26 min., 16 mm., sd., b & w.
Summary: Shows how learning and conditioning can be measured. Relates to the works of B. F. Skinner and R. J. Herrnstein.

Encyclopaedia Britannica Educational Corp., 425 North Michigan Ave., Chicago, Ill. 60611.

Personality and Emotions. 13 min., 16 mm., sd., b & w.
Summary: Portrays emotional conditioning, repression and jealousy.

McGraw-Hill Book Co., Text-Film Division, 327 West 41st Street, New York, N.Y. 10036.

Beginnings of Conscience. 15 min., 16 mm., sd., b & w.
Summary: Portrays the social forces that produce "conscience."

Children's Emotions. 22 min., 16 mm., sd., color.
Summary: Typical causes and characteristic expressions of emotion in children.

Conflict. 18 min., 16 mm., sd., b & w.
Summary: Five basic types of conflict are dramatized.

Controlling Behavior Through Reinforcement. 16 min., 16 mm., sd., b & w.
Summary: Shows experiments with pigeons in which varying reinforcement schedules were used and then shows similar experiments made in a typical elementary classroom.

The Development of Individual Differences. 13 min., 16mm., sd., b & w.
Summary: Discusses heredity and environment in comparison of two brothers, four years apart in age.

Everybody's Prejudiced. 21 min., 16 mm., sd., b & w.
Summary: Demonstrates bigotry.

Perception. 17 min., 16 mm., sd., b & w.
Summary: Demonstrates the basic principles of perception.

Principles of Development. 17 min., 16 mm., sd., b & w.
Summary: Presents six basic principles of growth and change.

McGraw-Hill Seminars, P. O. Box 402, Hightstown, N. Y. 08520.

The Forming of the Super-Ego in the Child, John Darrock, 30-min., magnetic tape, 3 1/4 i.p.s.

Humanistic Psychology, Charlotte Bugler, 72-min., magnetic tape, 3 3/4 i.p.s.

Motives and Learning, W. J. McKeachie, 26-min. magnetic tape, 3 3/4 i.p.s.

The Structure of Motive, William Fischer, 53-min. magnetic tape, 3 3/4 i.p.s.

National Educational Television Film Service, Audio-Visual Center, Indiana University, Bloomington, Ind. 47405.

The Anatomy of a Group, 30 min., 16 mm., sd., b & w.
Summary: Considers group structure, goals and procedures.

ESP: The Human X Factor. 30 min., 16 mm., sd., b & w.
Summary: Demonstration of precognition, clairvoyance and psychorinesis.

Need to Achieve. 30 min., 16 mm., sd., b & w.
Summary: Discussion of research and theory of achievement motivation.

Psychological Cinema Register, Audio-Visual Aids Library, The Pennsylvania State University, University Park, Pa. 16802.

Competition and Dominance in Rats. 13 min., 16 mm., sd., b & w.
Summary: Shows how rats who are accustomed to an "economy of abundance" are placed in competition for food.

BIOLOGICAL SCIENCE

Hours Per Week

Class, 3; Laboratory, 3

Description

This course introduces the student to the principles of biological science and scientific inquiry. The emphasis throughout, in both the laboratory and the classroom, is on the inquiry process. Content is presented as inseparable from the inquiry process which produced it.

The emphasis on ecological relationships may be inferred from the outline, and is coequal in importance with the emphasis on inquiry. Today's intensifying crises of population growth and destruction of the environment establish the relevance of this approach. Attention must be given to relationships within species, between species, and between organisms and their abiotic environment. Ecological relationships should be presented as selective factors operating to shape the evolution of life forms at all levels of organization. The biotic world must be presented as dynamic, not static.

A third emphasis is on fostering affective or attitudinal changes in the student. Evidence of those changes will be seen in such student behaviors as exhibiting increased curiosity about biological ideas and principles and showing greater willingness to subject his opinions and findings to criticism and evaluation by others; demonstrating greater objectivity in his classroom comments and criticisms; displaying greater commitment to the scientific method; and, revealing a growing tendency to weigh scientific advances and technological process against the standards of public welfare, rather than against the advantages of specialized and narrow interest groups.

Major Divisions

	Hours	
	Class	Laboratory
I. The Inquiry Process	4	3
II. The Basis of Life	8	9
III. The Function of Life	15	15
IV. Reproduction and Adaptation	8	9
V. Man and the Environment .	13	12
Total	48	48

I. The Inquiry Process

A. Performance Objectives
Upon completion the student should be able to:

1. Define the following terms: property, variables, causal relationship, noncausal relationship
2. Apply the terms in 1 above to the description of data presented either situationally or in written form
3. Identify structures of organisms, external and internal
4. Make comparisons between observed characteristics of related and unrelated organisms
5. Use simple taxonomic principles to

classify organisms
6. Identify functions of organisms
7. Present data acquired through observation and experimentation in the form of charts, tables or graphs, as appropriate, to show functions and relationships
8. Identify the relation of structure to function in organisms
9. Describe relationships or lack of relationships between structures and functions
10. Relate factors to other factors, and to the condition of the total organism
11. Relate changes in environmental conditions to changes in organisms
12. State a problem in terms of the five principles of inquiry
13. Design an experiment in terms of the five principles of inquiry
14. Define variables operationally
15. Identify source of errors in experimental work
16. Distinguish between systematic and random error
17. Plan ways of reducing systematic and random errors to a minimum
18. Identify a problem in a structured situation
19. Formulate an hypothesis
20. Design an experiment to test the hypothesis
21. Perform the experiment he (or the class) designed
22. Interpret the data obtained

B. Units of Instruction
1. The goals of science
   a. Description
      (1) Variables
      (2) Relationships between variables
   b. Explanation
2. Principles of inquiry
   a. Taxonomic principle
   b. Antecedent-consequent principle
   c. Structure-function principle
   d. Regulation and homeostasis principle
   e. Self-regulatory system principle
3. Rules of science
   a. Rule of operational definition
   b. Rule of generality
   c. Rule of controlled observation
   d. Rule of repeated observation
   e. Rule of confirmation
   f. Rule of consistency
4. Inquiry factors
   a. Stating the problem
   b. Formulating an hypothesis
   c. Designing an experiment to test the hypothesis
   d. Performing the experiment
   e. Interpreting the data
   f. Synthesizing knowledge gained from the investigation

C. Laboratory
Study of pond (or aquarium) samples in terms of the principles of inquiry, for example:
1. Determining populations present; kinds of organisms, numbers present, distributions
2. Studying the effects of oxygen level, light intensity temperature
3. Food webs present and the effects of altering various populations in the webs
4. Effects of introducing various extraneous factors into the pond

II. The Basis of Life

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the types of orbitals in carbon, hydrogen, oxygen and nitrogen
2. Explain how sp^3 hybridization affects the biotic world
3. Describe the properties of carbon which make it especially suitable as a basis for life
4. Describe the effect of the bonding properties of carbon on the shapes of organic molecules
5. Differentiate among stereoisomerism (optical isomerism), geometrical isomerism (cis-transisomerism) and structural isomerism, with examples
6. Specify the structural units of cellulose, starch, fats (trigly-cerides), proteins and nucleic acids
7. Contrast ionic and covalent bonding, describe hydrogen bonding and state how each of the three types of bonding is related to living organisms
8. Specify the characteristics which in sum distinguish between living organisms and inorganic entities
9. Describe the hierarchy of levels of organization of matter
10. Explain why man must recognize that ecological relationships operate at all levels of organization
11. Explain how organisms affect their en-

vironment as well as being affected by it
12. Cite examples of specialization at the organismic, specific and community levels of organization
13. Explain the relation of levels of organization to energy, complexity, numbers of subunits, competition and cooperation
14. Compare and contrast plant and animal cells in terms of cell components and secretions
15. Describe the functional significance of the plasma membrane, mitochondria, nucleus, ribosomes and plastids
16. Compare and contrast procaryotic and eucaryotic cells with regard to internal structure and organization, average size and occurrence

B. Units of Instruction
1. Biological basis of life
   a. Metabolism and self-perpetuation
   b. Living matter
   c. The hierarchy of levels of organization of matter
   d. Specialization
2. Chemical basis of life
   a. Elements and compounds
   b. Dissociation
   c. Chemical changes

C. Laboratory
1. The formation of coacervates and comparisons with living microorganisms
2. Membrane structure
   a. Membranes formed from strictly inorganic materials
   b. The skin of heated milk
   c. The cell membrane of living and dead yeast cells
3. Factors affecting photosynthesis

III. The Functions of Life

A. Performance Objectives

Upon completion the student should be able to:
1. Describe the difference between the nutritional requirements of heterotrophs and autotrophs
2. Explain the effect of various environmental factors on the rate of photosynthesis
3. Describe the characteristics of active transport systems
4. Describe the cardiac cycle and explain how its organization prevents heart fatigue
5. Explain why it is incorrect to say, "We breathe in oxygen and breathe out carbon dioxide"
6. Compare the energy output of aerobic respiration with that of anaerobic respiration
7. Describe the role of plant hormones in controlling plant growth and development and cyclic phenomena
8. Specify the hormones produced by vertebrate endocrine glands and describe the primary cellular functions of each
9. Compare and contrast the autonomic and the central nervous systems
10. Describe a nerve impulse, its propagation within a nerve fiber and its transmission across a synapse
11. Differentiate among reactive, active and cognitive behaviors and give specific examples of each
12. Describe and contrast the organization of insect and vertebrate societies and individual-group relationships
13. Describe the experimental evidence for the existence of "biological clocks"
14. Explain what is meant by "sun compass orientation"

B. Units of Instruction
1. Nutrition
   a. Self-feeders
   b. Dependent feeders
   c. Digestion, absorption and distribution
2. Respiration
   a. Energy transfer
   b. Aerobic sequence
   c. Anaerobic sequence
3. Chemical control
   a. Plant hormones
   b. Animal hormones
4. Neural control
   a. Neural pathways
   b. Neural centers
   c. Neural receptors
5. Behavior
   a. Forms of behavior
   b. Patterns of behavior
      (1) The S-R pattern
      (2) Biological clocks
      (3) Space orientation

C. Laboratory
1. Enzymatic activity in living materials
2. Factors controlling the rate of enzymatic activity
3. Transportation in vascular plants
4. Chemical factors affecting pulse rate in daphnia

5. Growth of a confined population vs. growth of a single organism (use bacterial cells or yeasts)

IV. Reproduction and Adaptation

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the events basic to every sexual process and the conditions under which sexual processes tend to occur
2. Explain the basic function of meiosis and why meiosis is necessary
3. Describe the hormonal controls and the process of follicle growth up to the time of ovulation
4. Describe the hormonal controls and events in the uterus up to the time of menstruation
5. Describe the reproductive and hormonal events during pregnancy
6. Calculate phenotypic ratios for monohybrid, dihybrid and trihybrid crosses
7. Cite examples of non-Mendelian inheritance
8. Cite the experimental evidence for different kinds of gene units
9. Define the modern meaning of natural selection
10. Cite the evidence for evolution
11. State the rate and amount of evolution in a population in which a Hardy-Weinberg equilibrium exists
12. State the three conditions which disturb Hardy-Weinberg equilibria, how each disturbs such equilibria and the resultant effect on evolution
13. Specify and define the major divisions of the Linnaean system of taxonomy
14. Explain the advantages and disadvantages of any taxonomic system

B. Units of Instruction
1. Cellular reproduction and mitosis
2. Sexuality and meiosis
3. Mendelian inheritance
4. Non-Medelian inheritance
5. Evolution
6. Taxonomy of life forms

C. Laboratory
1. Mitosis in onion root tips and fava bean root tips
2. Conjugation in the paramecium
3. Role of auxins in plant development

V. Man and the Environment

A. Performance Objectives
Upon completion the student should be able to:
1. Specify the characteristics of a population
2. Define ecosystem, ecological succession, climax community, sere, species, polymorphism, food pyramid and food cycle
3. Enumerate the various forms of symbiosis and give specific examples of each
4. Define synergism and give an example of two organisms which are synergetic
5. Describe the physical and biological conditions which characterize the following habitats: oceanic photic zone, oceanic pelagic zone, neritic pelagic zone, benthonic zone, freshwater, desert, grassland, rain forest, deciduous forest, taiga and tundra
6. Outline the global nitrogen cycle, the phosphate cycle, the calcium cycle, the oxygen cycle and the carbon cycle
7. Cite historical examples of the ecological folly of man
8. Describe the major effects on life that can be attributed to atmospheric pressure
9. Predict the ultimate effect of accumulated soil contaminants which would inhibit sulfur bacteria and nitrogen-fixing bacteria
10. Cite experimental evidence to support the statement, "Hibernation, estivation, leaf-drop and migration are better interpreted as responses to lack of available water rather than to temperature changes"
11. Cite evidence that the physical-chemical conditions which prevail on earth, far from being inimical to life, have properties conducive to the evolution and perpetuation of life
12. Cite evidence of the long-term damage inflicted on various biotic communities by use of insecticides and other chemicals
13. Cite evidence of the persistence of toxic contaminants, such as pesticides and fallout, and their concentration in human and animal tissues resulting from the passage of these substances through the food chain
14. Distinguish between Batesian and Mullerian mimicry and give examples of each
15. Predict future world population by ex-

trapolation from current population statistics

16. Describe the stresses on the world ecosystem which arise due to human population pressures

B. Units of Instruction
   1. Biotic environment
   2. Physical environment
   3. Patterns of interdependence
      a. Synergism
      b. Symbiosis
   4. Examples of ecological folly
   5. Putting ecology to work for man
   6. World population and the world ecosystem

C. Laboratory
   1. A stream, pond survey
   2. Laboratory study of the structure of a lichen
   3. Individualized field study of sources of pollution

VI. Some Additional, Optional, and/or Substitute Laboratory Exercises

1. Investigation of hydrotropic responses of roots (test of the folk belief that roots grow toward water)
2. Study of the relation of temperature to respiration rate in arthropods and arachnids
3. Study of regeneration of Lumbricus, Planaria
4. Field study of bark epiflora, non-taxonomic
5. Statistical study of tongue-rolling
6. Histochemical tests
7. Uptake of carbon-14 dioxide in photosynthesis
8. Evolution of carbon-14 dioxide during plant respiration
9. Study of cellulose-digesting bacteria from the gut contents of slugs

Texts and References

BAKER *and* ALLEN. *A Course in Biology.*

BLACKBURN. *Interrelations: The Biological and Physical Sciences.*

GOIN. *Man and the Natural World: An Introduction to Life Science.*

JACKSON. *Man and the Environment.*

KIMBALL. *Biology.*

LOEWY *and* SIEKEVITZ. *Cell Structure and Function.*

NASON. *Essentials of Modern Biology.*

ORIANS. *The Study of Life: An Introduction to Biology.*

PLATT *and* REID. *Bioscience.*

SIMPSON *and* BECK. *Life: An Introduction to Biology.*

TRUMP *and* FAGLE. *Design for Life.*

VOLPE. *Understanding Evolution.*

WEISZ. *Elements of Biology.*

Related Media

Coronet Films, Coronet Building, Chicago, Ill. 60601.

Cell Biology-Life Functions. 19 min., 16 mm., sd., color and b & w., 1965.

Summary: Investigates the chemical and physical processes in the living cell which provide a basis for the life functions. Considers diffusion, osmosis, energy production, reproduction, movement and digestion. Uses geometric figures to describe chemical reactions involving DNA, RNA, ATP and ADP.

Cell Biology-Mitosis and DNA. 16 min., 16 mm., sd., color and b & w., 1965.

Summary: Describes the structure and duplication process of the DNA molecule. Uses microphotography and animation to show the division of a living cell. Illustrates the stages of the mitotic process and explains the meiotic process.

Cell Biology—Structure and Composition. 14 min., 16 mm., sd., color and b & w., 1965.

Summary: Explores the structure of a cell, using microphotography, electron micrographs and models. Analyzes protoplasm and describes the cell membrane, cytoplasm, nucleus, chromosomes and endoplasmic reticulum.

The Food Cycle and Food Chains. 11 min., 16 mm., sd., color, 1963.

Summary: Uses animation and live action photography to describe good food chains, almost all depending ultimately on green plants, and relates these food chains to the larger concepts of the oxygen-carbon dioxide and the nitrogen cycles, and to the unending pattern of life, growth and decay which is known as the food cycle.

Genetics—Mendel's Laws. 14 min., 16 mm., sd., color and b & w., 1962.

Summary: Duplicates some of Mendel's experiments with pea plants and explains his laws of dominance, segregation and independent assortment. Describes later work by De Vries, Corens, Morgan and Muller. Provides scenes of Mendel's garden in Czechoslavakia.

Encyclopaedia Britannica Films, 1150 Wilmette Avenue, Wilmette, Ill. 60091.

Digestive System. 17 min., 16 mm., sd., color and b & w., 1965.

Summary: Illustrates the process of human digestion. Includes films by x-ray motion picture photography.

DNA—Molecule of Heredity. 16 min., 16 mm., sd., color and b & w., 1961.

Summary: Dr. George W. Beadle, discoverer of DNA and Nobel prize winner, explains why DNA is the basis of growth and reproduction and the mechanism for transporting hereditary specification from one generation to the next.

The Physical Environment. 11 min., 16 mm., sd., color

and b & w., 1962.
Summary: Describes how organisms adapt to the varied physical and climatic conditions on the earth.

Succession– From Sand Dune to Forest. 16 min., 16 mm., sd., color, 1962.
Summary: Illustrates the process and general principles of ecological succession by which an area slowly and continuously changes until it becomes a stable natural community. Photographed in the Lake Michigan Dunes.

Living Adventure Films, 863 Mountain View Drive, La Fayette, Calif. 94549.

Marshlands. 11 min., 16 mm., sd., color, 1964.
Summary: Portrays the marshlands as a pinpoint on the planet earth. Shows the relationship of industry and wild life to a specific area.

McGraw-Hill Textfilms, 330 West 42nd Street, New York, N.Y. 10018.

Biochemical Genetics. 28 min., 16 mm., sd., color and b & w., 1961.
Summary: Studies the field of biochemical genetics. Examines the life cycle of neurospora, showing how single gene mutations can block chemical reactions. Describes the discovery and construction of the DNA molecule.

Cell Respiration. 28 min., 16 mm., sd., color and b & w., 1960.
Summary: Describes respiration as the power-producing part of cell metabolism. Explains the function of ATP molecules in cell respiration and relates this to cell nutrition and synthesis.

Chlorophyll. 28 min., 16 mm., sd., color and b & w., 1960.
Summary: Used models, electron photomicrographs and live seedlings to show various aspects of photosysthesis. Explains the composition and structure of carotenes in photosysthesis and shows pigments present in chloroplasts.

Growth and Replacement. 28 min., 16 mm., sd., color and b & w., 1960.
Summary: Explains cell growth from the molecular level to whole organisms. Indicates the roles of proteins and enzymes in growth and replacement and describes how the nuclues directs cell growth and replacement.

Hormones. 28 min., 16 mm., sd., color and b & w., 1961.
Summary: Defines "hormones" and "target organs" and studies experiments of Bayliss and Starling leading to the discovery of hormones. Covers the chemical constitution of hormones and demonstrates hormonal changes in the rooster and in the caterpillar.

Life in the Woodlot. 17 min., 16 mm., sd., color, 1960.
Summary: The camera reveals the complex pattern in which the seasonal and life cycles of man, animals and plants are interrelated.

Natural Selection and Adaptation. 28 min., 16 mm., sd., color and b & w., 1961.
Summary: Discusses the origin of DDT-resistant bacteria. Shows the practical importance of the theory of adaptation by natural selection.

Population Ecology. 28 min., 16 mm., sd., color and b & w., 1961.
Summary: Illustrates nature's orderliness, despite migrations, immigrations, competition and predation. Demonstrates the use of population growth curves illustrating increases in the size of a population. Uses models to explain the effects of competition and predation.

Regulation and Control. 28 min., 16 mm., sd., color and b & w., 1960.
Summary: Shows activity of certain organelles of cells. Describes functions of the nucleus in terms of the regulating activities of DNA and RNA. Discusses the use of tissue culture in cell control.

Reproduction. 28 min., 16 mm., sd., color and b & w., 1960.
Summary: Discusses both sexual and asexual methods of reproduction, explaining variation brought about by sexual reproduction. Describes the reproduction cycle in the paramecium, volvox, spirogyra and others.

PHYSICAL SCIENCE

Hours Per Week

Class, 3; Laboratory, 3

Description

This course is a broad survey of the physical sciences. It will introduce the student to the basic laws of chemistry and physics, and the earth sciences. The emphasis throughout should be on the application of physical laws to the interpretation of the physical environment.

The course covers an extremely large subject area. In preparing a daily lesson plan, the instructor should limit discussion to the major aspects of each topic. Laboratory work will provide more in-depth information for some topics.

During the laboratory periods students should become familiar with laboratory measurements and should learn the distinction between accuracy and precision. The purpose of the laboratory is to give the student some idea of the work of scientists, the kinds of information collected and the treatment of data.

In addition to the field trip recommended for Unit V (Fossil Collecting), other field trips which would contribute substantially to the objectives of the course are visits to a:

1. Planetarium
2. Local weather station
3. Nuclear power generating station
4. Seismographic station

Major Divisions

	Hours	
	Class	Laboratory
I. Earth as a Planet	6	6
II. Solid Earth	6	6
III. Atmospheric Phenomena	3	3
IV. Oceans	3	3
V. Earth History	3	3
VI. Energy	12	12
VII. Matter and Change	15	15
Total	48	48

I. Earth as a Planet

A. Performance Objectives
Upon completion the student should be able to:
1. Locate positions on the earth's surface
2. Locate celestial objects in space by means of appropriate coordinate systems
3. Develop isoline and isosurface models to show field characteristics of the earth; for example, average sea level, average rainfall and sea level
4. Develop a model to show the dimensions of the lithosphere, hydrosphere and atmosphere
5. Make valid inferences about terrestrial motions from reported observations, behavior of pendulums, behavior of streams and behavior of winds
6. Develop a simple model for the solar system

B. Units of Instruction
1. Terrestrial coordinates
2. Celestial coordinate systems
   a. Equatorial system
   b. Horizon system of celestial coordinates
3. Terrestiral motions
4. Terrestrial motions and time
5. Isolines and isosurfaces
6. Solar system

C. Laboratory
1. Coordinate systems
2. Terrestrial motions and time events

II. Solid Earth

A. Performance Objectives
Upon completion the student should be able to:
1. Examine portions of the earth's crust and identify evidence for crustal change
2. Describe the movement of water in and on various earth materials
3. Observe rocks and sediments to determine the similarities
4. Analyze and relate various aspects of the water budget to the environment
5. Observe non-sedimentary rocks to determine their characteristics
6. Determine the time, focus and epicenter of an earthquake given the necessary seismic data

B. Units of Instruction
1. Interior of the earth
2. Seismic activity
3. Vulcanism and igneous processes
4. Crustal movements: epeirogeny, orogeny, revolution and isotasy
5. Surface and ground water
6. Sedimentation and sedimentary rocks
7. Metamorphis rocks

C. Laboratory
1. Study of igneous, sedimentary and metamorphic rocks
2. Map exercise; seismic activity

III. Atmospheric Phenomena

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the factors which influence total isolation
2. Describe processes of energy transfer in the atmosphere
3. Describe the characteristics of an air mass when given synoptic weather data

B. Units of Instruction
1. Energy transfer processes
2. Air masses
3. Isolation

C. Laboratory
1. Weather data (1/2 period)
2. Weather maps (1/2 period)

IV. Oceans

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the energy transfer processes in the oceans
2. Describe the characteristics of water masses from synoptic data
3. Develop a simple model for ocean tides

B. Units of Instruction
1. Energy transfer processes
2. Water masses and their movements
3. Tides

C. Laboratory
1. Map exercise; the oceans and energy transfer processes
2. Map exercise; plotting tides

V. Earth History

A. Performance Objectives
Upon completion the student should be able to:
1. Examine geologic evidence from an area and draw inferences about the geologic history of the area
2. Determine the probable chronological order of geologic events when given the necessary geologic data
3. Describe the evidence from the fossil record which supports the theory of biological evolution

B. Units of Instruction
1. Geologic time
2. Fossil record
3. Evolution

C. Laboratory
1. Laboratory study of fossils
2. Field trip to gather fossils (if at all possible)

VI. Energy

A. Performance Objectives
Upon completion the student should be able to:
1. Solve uncomplicated problems requiring knowledge of the concepts and principles of momentum and energy
2. State fundamental definitions and laws on which the science of mechanics is based, and give illustrative examples of their application in everyday life
3. Read and understand verbal and mathematical information involving mechanical energy transformation and motion
4. Solve practical problems utilizing fundamental concepts of heat, light and sound
5. Solve uncomplicated problems involving concepts and principles of electric and magnetic charges
6. State definitions related to, and describe interactions, of electric and magnetic fields
7. Execute, with minimal supervision, prescribed measurements of physical quantities; perform experiments; record and interpret data therefrom; draw conclusions; and, assemble in formal report form

B. Units of Instruction
1. Motion and force
2. Universal gravitation
3. Work, energy and power
4. Fluids
5. Heat phenomena and heat transfer
6. Heat engines
7. Sound
8. Light as a wave motion
9. The electromagnetic spectrum
10. Static electricity
11. Current electricity
12. Magnetism and magnetic fields

C. Laboratory
1. Measurements (balance, vernier, caliper, micrometer caliper, steel rule, meter stick, optical flats, gauge blocks and dial comparator)
2. Plotting graphs

VII. Matter and Change

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the important relations involved in the conservation laws
2. Identify the groups and arrangements within the periodic table
3. State the fundamental laws governing chemical reactions
4. Solve uncomplicated problems requiring knowledge of fundamental laws of chemistry
5. Perform, with minimal supervision, prescribed straightforward experiments, record data and make necessary calculations

B. Units of Instruction

1. Nature of matter
2. Laws of conservation
3. Atomic structure and the periodic law
4. Periodic classification and the properties of elements
5. Chemical bonding
6. Concentrations of solutions
7. Bond energies
8. Chemical equilibrium and Le Chatelier's Principle
9. Catalysis

C. Laboratory
1. Measurements (volume, density and specific gravity of a solid, a liquid and air)
2. Electron transfer reactions of metals
3. Electron transfer reactions of nonmetals
4. A stoichiometric exercise
5. Titration of a strong acid with a strong base — HC1 + NaOH

Texts and References

ALLEN *and* ORDWAY. *Physical Science.*
BERTIN. *Larousse Encyclopedia of the Earth.*
BOOTH. *Elements of Physical Science: The Nature of Matter and Energy.*
CAILLEUX. *Anatomy of the Earth.*
GAMOW. *Matter, Earth, and Sky.*
MILLS, SHERWOOD *and* PARSONS. *College Physical Science.*
POPPY *and* WILSON. *Exploring the Physical Sciences.*
WINTER. *The Physical Sciences: An Introduction.*
WISTAR. *Man and His Physical Universe.*

Related Media

Churchill Films, 662 N. Robertson Blvd., Los Angeles, Calif. 90069.

A Space Flight Around the Earth. (2nd ed.). 12 min., 16 mm., sd., color and b & w., 1965.
Summary: Shows the appearance of the earth from space, pictures the planet's roundness, oceans, land and atmosphere. Shows astronauts Glenn and White on their historic flights.

Coronet Films, Coronet Building, Chicago, Ill. 60601.

Chemical Bond and Atomic Structure. 16 min., 16 mm., sd., color and b & w., 1963.
Summary: Discusses the structure of atoms and shows how electrons help determine the way in which the atom bonds chemically with other atoms. Uses animation and laboratory demonstration to show three types of chemical bond and explains how bonding affects a substance.

How Weather Is Forecast. 11 min., 16 mm., sd., color and b & w., 1953.
Summary: Shows the operation of a weather observation station and a weather forecasting station. By means of animation, a weather map is charted and its symbols explained. The instruments used in weather forecasting and their functions are discussed.

Ionic Equilibrium. 16 min., 16 mm., sd., color and b & w., 1960.
Summary: Demonstrates several features of ionic equilibrium, using a cupric bromide solution. Discusses the "common ion" effect and describes the formation and solution of precipitates.

Limestone Caverns. 11 min., 16 mm., sd., color and b & w., 1943.
Summary: Shows how the physical and chemical actions of water and the atmosphere affect strata and deposits. Pictures the colorful formations of stalactites, stalagmites, spattercones, helictites and oolites.

Metals and Non-Metals (2nd ed.). 14 min., 16 mm., sd., color and b & w., 1963.
Summary: Shows the differences in physical properties of metals and nonmetals. Explains their chemical properties and their positions in the periodic table, and illustrates the close-packing of atoms in metals.

Standard Solutions and Titration. 21 min., 16 mm., sd., color, 1960.
Summary: Explains how a sodium hydrozide solution is standardized against a potassium hydrogen phthalate solution. Also shows how the sodium hydroxide solution is used to determine the acetic acid concentration of a sample of vinegar. Examines the calculations used.

Velocity and Acceleration. 14 min., 16 mm., color, 1963.
Summary: Defines motion and explains the concepts of velocity and acceleration. Shows the difference between speed and velocity. Illustrates the positive and negative acceleration due to gravity. Uses live action and animation.

Encyclopaedia Britannica Films, 1150 Wilmette Avenue, Wilmette, Ill. 60091.

The Atmosphere. 30 min., 16 mm., sd., color, 1957.
Summary: Discusses the physical properties of the earth's atmosphere. Demonstrates and shows practical applications of atmospheric pressure.

Forces. 14 min., 16 mm., sd., color, 1961.
Summary: Shows balanced and unbalanced forces, power of specific force as exerted against objects, and impact and its relation to force. The magnet is shown as it is related to force.

An Introduction to Oxidation and Reduction. 30 min., 16 mm., sd., color, 1959.
Summary: Draws an analogy between conjugate oxidizing-reducing systems and conjugate and acid-base systems.

The LeChatelier Principle. 30 min., 16 mm., sd., color, 1959.

Summary: Shows the effects of a concentration on equilibrium. Applies the LeChatelier Principle to the ethyl acetate equilibrium.

Rate of Reaction. 28 min., 16 mm., sd., color and b & w., 1960.
Summary: Discusses several factors, including surface area and temperature, which can affect reaction rates. Shows the reaction between crystals of potassium permanganate and glycerine and between oxalic acid solutions and permanganate solutions.

McGraw-Hill Textfilms, 330 West 42nd St., New York, N.Y. 10018.

Study of the Oceans—Oceanography. 27 min., 16 mm., sd., color, 1971.
Summary: Examines the variety of currents, the life cycle in the ocean, topography and composition of ocean bottoms, and the structure and content of sediments.

Determining a Molecular Formula. 13 min., 16 mm., sd., color, 1962.
Summary: Shows how the molecular weight and formula of a compound may be determined with knowledge of the percentage composition by weight of the compound and by the application of Avogadro's Law.

The Earth's Changing Surface. 11 min., 16 mm., sd., color, 1961.
Summary: Discusses effects of water, wind, oceans and temperature on the earth's surface. Animated scenes shows the cracking and flaking of rock as it freezes and thaws, and the spread of glaciers over the United States.

Energy and Reactions. 15 min., 16 mm., sd., color, 1962.
Summary: Shows the relationship between energy and chemical reactions. Relates this phenomenon to fundamental concepts such as chemical bonding, activational energy and rate of reaction.

Magnetic Force. 17 min., 16 mm., sd., color and b & w., 1960.
Summary: A study of the earth's magnetic field. Explains the nature and use of magnetism and geomagnetism. Studies history of magnetism and shows Argus experiment and the "Dynamo Theory."

The Nearest Star—Sun and Solar Activity. 27 min., 16 mm., sd., color, 1960.
Summary: Portrays the unique and critical role of the sun in the drama of our own planet. Explains how solar towers, rockets and balloons are used in the study of the sun, and describes the communications system established by the National Bureau of Standards to coordinate work on solar disturbances.

Ocean Currents. 17 min., 16 mm., sd., color, 1963.
Summary: Explains that tides, winds and currents keep the ocean water in constant motion. Describes how currents are formed and how they affect weather. Considers how land forms and the Coriolis effect influence the past of currents. Discusses counter-currents.

Rocks and the Record. 28 min., 16 mm., sd., color, 1961.
Summary: Discusses the methods which are used to determine the age of rocks and fossils. Studies both the simplest methods and the modern radioactive dating methods.

Auxiliary Technical Course

DATA PROCESSING APPLICATIONS

Hours Per Week

Class, 2; Laboratory, 3

Description

Students will be introduced to the realities of what a computer is and its capabilities and limitations. This course is designed to give students a proper perspective of what the computer is, the role it plays in today's society and its potential in tomorrow's society.

It is imperative that students graduating from any school of higher education or technical education be exposed to and become familiar with the computer and the role that it will play in our technological society. The increasing capability and decreasing cost of computer hardware is encouraging more and more companies to use computers to more effectively manage their businesses. In the future there will be few, if any, areas of endeavor which will not in some way be affected by this tool.

The vast majority of paraprofessional students will be employed where their productivity and effectiveness will be related to an awareness of the capabilities and limitations of computer data processing. These students will be working in an environment where much of their daily activity will be touched by computer technology. To provide the student a better chance to become a successful member of the work force and society in an automated environment, he must be given an understanding of this technology.

Major Divisions

	Hours	
	Class	*Laboratory*
I. Survey and Overview	3	1
II. Functional Components of the Data Processing Cycle	2	2
III. Punched Card Data Processing	3	10
IV. Computer Data Processing	4	4
V. Computer Languages and Programming	4	2
VI. Role of Data Processing Management	7	14
VII. Typical Data Processing Applications	6	12
VIII. Future	3	3
Total	32	48

I. Survey and Overview

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the importance of data processing in today's businesses
2. Match data processing terms with correct definitions
3. Describe the interrelationships of computer systems' hardware and software
4. List the significant events in the history (evolution) of information processing systems

B. Units of Instruction
1. Events of significance in the history of data processing systems and computer systems
2. Functions of data processing systems
3. Methods of processing data

C. Laboratory
1. Tour of a computer center
2. Demonstrations of data processing equipment
   a. Unit record
   b. Computer
   c. Remote job entry

II. Functional Components of the Data Processing Cycle

A. Performance Objectives
Upon completion the student should be able to:
1. Relate the following terms to a student registration system: input, processing, storage, output and file maintenance
2. List, define and give examples of the steps in the data processing cycle

B. Units of Instruction
1. Data collection
2. Input

3. Storage
4. Processing
5. Output

C. Laboratory
1. Access file via communications terminal
2. Describe input, storage, processing and output
3. Prepare narrative of an existing application for a given application

III. Punched Card Data Processing

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the coding system used for punched card
2. Prepare systems logic flow charts for punched cards
3. Punch data for a "live" computer application
4. Identify the function of unit record equipment, i.e., card punch, card punch verifier, sorter, collator, calculator, reproducer and accounting machine
5. Identify the function of each punched card machine in a simple payroll and student information system

B. Units of Instruction
1. Reporting in punched card systems
2. Punched card file organization and processing
3. Punched card equipment – card punch, verifier, sorter, collator, calculator, reproducer, accounting machine
4. Systems design and analysis techniques

C. Laboratory
1. Flow charting detailed events in an existing application
2. Documenting an existing application, i.e., source documents, reports, narrative, flow charts of system
3. Operating each piece of punch card equipment with data provided
4. Timing considerations for punched card operations

IV. Computer Data Processing

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the coding system used for secondary storage
2. Describe the coding system used for internal storage (primary storage) data representation
3. Describe file organization and access methods
4. Prepare systems flow charts for a computer application
5. Run (operate) the computing system for a "live" computer application
6. Identify the importance of the following functional elements of a data processing system; hardware, software, user programs and personnel
7. Describe the methods of accessing storage – primary and secondary

B. Units of Instruction
1. Functional elements – hardware, software, user programs, personnel – and characteristics of each
2. Functional components of a computer system – input, storage, CPU, control, output – and concepts of each
3. Systems analysis and design techniques

C. Laboratory
1. Load and execute a program on a punched card system
2. Typical applications
   a. Flow chart system (sorter and computer system) to prepare reports
   b. Describe files, source documents, input cards and computer reports
   c. Prepare documentation to convert an existing punched card application to a computer system with tape or disk storage

V. Computer Languages and Programming

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the characteristics of procedure-oriented languages
2. Identify the importance of computer operating systems
3. List the characteristics of a computer program
4. Describe the steps in preparation of a computer program; systems analysis, program planning, coding, compilation, debugging and documentation

B. Units of Instruction
1. Procedure-oriented languages and characteristics
2. Program preparation, compilation, debugging and documentation

3. Considerations for language selection
4. Concepts and philosophy of operating systems
5. Program narrative

C. Laboratory
1. Punch sample program and compile
2. Develop a program flow chart
3. Write a narrative for program
4. Operate the computer in a "live" application

VI. Role of Data Processing Management

A. Performance Objectives
Upon completion the student should be able to:
1. Demonstrate an understanding of the information needed for effective communication with data processing personnel
2. Describe the necessity of accounting controls in a data processing system
3. Describe the role of advanced operations analysis techniques such as critical path analysis, and systems simulation and forecasting
4. Prepare the following as analysis, planning aids, and documentation for a typical application in the student's major area of study
a. Printer spacing charts
b. Multiple card lay-outs
c. Systems flow chart corresponding to a narrative description
d. Narrative description of source and function of data
e. Off-line procedures

B. Units of Instruction
1. Type of data required and reporting system
2. Effective communication with data processing personnel
3. Need for mechanization
4. Fundamentals of feasibility study and analysis techniques

C. Laboratory
1. Conduct feasibility study for mechanized order processing
2. Prepare education plan for employees in an institution or business converting to a mechanized system

VII. Typical Data Processing Applications

A. Performance Objectives
Upon completion the student should be able to:
1. Assess the feasibility study as an approach to evaluating a data processing system
2. Prepare a basic feasibility study for a data processing system in the student's major area of study

B. Units of Instruction
1. Information retrieval
a. Large file
b. Subject index
2. System simulation
3. Fundamental record keeping

C. Laboratory
1. Operate computer system for file maintenance and report generation in a payroll application
2. Document the steps involved in input data preparation for typical payroll application
3. Describe types of records and reports prepared as part of student record application

VIII. Future

A. Performance Objectives
Upon completion the student should be able to:
1. Describe the impact of the computer on his career and life style
2. Compare the mental capabilities of a human with the processing capabilities of a computer system

B. Units of Instruction
1. Hardware
2. Software
3. Information technology

C. Laboratory
1. Describe a "real-time" application
2. Develop accounting controls for an organization with a centralized data bank

Texts and References

BECKER. *Systems Analysis, Prelude to Library Data Processing.*

ARNOLD, HILL *and* NICHOLS. *Modern Data Processing.*

DAVIS. *Computer Data Processing.*

FEINGOLD. *Introduction to Data Processing.*

INTERNATIONAL BUSINESS MACHINES. *Library Automation– Computer Produced Book Catalog.*

———. *Library Applications on S/360 at Florida State University.*

SCIENCE RESEARCH ASSOCIATES, INC. *Principles of Business Data Processing.*

SIPPLE. *Computer Dictionary and Handbook.*

———. *Standard Manual of Paperwork Flow Charting for Management.*

Related Media

Ford Motor Co., Motion Picture Dept., 3000 Schaefer Rd., Dearborn, Mich. 48122.

1999 AD. 32 min., 16 mm., sd., color.

Modern Talking Pictures, 1212 Ave. of the Americas, New York, N.Y. 10036.

A Better Way. 28 1/2 min., 16 mm., #785, sd., color. Procter and Gamble Co.

IBM Glossary.

Information Machines. 10 min., 16 mm., sd., color.

Introduction to Feedback. 16 min., 16 mm., color.

Men and Computer. 20 min., 16 mm., sd., color.

Science Research Associates, 259 Erie St., Chicago, Ill.

Overhead Transparencies for Principles of Data Processing.

Southern Illinois University, Learning Resources Service, Carbondale, Ill. 62901.

Computer and Human Behavior. 16 min., 16 mm., sd., color.

U. S. Steel Foundation, Chicago Film Distribution Center. United States Steel, 208 South La Salle St., Chicago, Ill.

Thinking Machines. 21 min., 16 mm., sd., color.

FACILITIES, EQUIPMENT AND COSTS

General Planning of Facilities

General laboratories, classrooms, offices and storage facilities for the Library Technical Assistant curriculum do not require highly unusual architectural and environmental conditions. Most well-constructed buildings may be adapted for use. If plans are being made to start a Library Technical Assistant program in an established institution offering programs in other technologies, a careful analysis should be made of existing classrooms and laboratories to assess the feasibility of using existing facilities.

Consideration must be given in the teaching-learning areas and the laboratory areas to varying room sizes or divisions, ventilating and controlling temperature, controlling light, providing adequate electrical power and controlling sound. Provisions should be made for closed circuit television, projection screens, adequate seating and storage for equipment, materials and displays.

Air conditioning is recommended for all classrooms, laboratories and offices. It is essential, however, that mechanical equipment to provide constant temperature and humidity control be installed in the photographic darkrooms, sound-recording and reproduction laboratory, media production laboratory and data processing laboratory. Some of the equipment used in these laboratories generates great quantities of heat. In some cases the supplies and materials used in the laboratories have temperature and humidity control requirements for storage and maintenance.

Electrical services in the laboratories should provide for both 110 and 220-volt current. There should be an ample number of 110-volt duplex outlets for the operation of typewriters and small production and reproduction equipment. Outlets for 220 volts should be provided for the operation of heavy equipment. Simple convenient methods of controlling light levels, such as dimmer switches, should be installed so that projected materials may be used efficiently. Control panels for electrical apparatus should be conveniently located with a circuit breaker for each circuit to prevent overloading.

All classrooms and laboratories should be well-lighted. A minimum of 70 foot-candles of comfortable, uniform light is recommended on all work surfaces of classrooms and offices. In the graphic illustration laboratory, a minimum of 100-foot candles of light must be provided. The fixtures should be arranged diagonally to the tables to prevent drawing equipment shadows from appearing on the drawing surfaces.

The following discussion assumes that conventional classrooms, offices, lecture rooms and necessary related accommodations already are available. Therefore, only the physical facilities specifically identifiable with the technical specialty are described. (Where the laboratory requirements for the technical curriculum are unique to the requirements for other classrooms and laboratories, they are described in detail.) Facility plans and estimates are based on 24 students, the maximum number recommended in the specialty courses.

Equipment Operation and Repair Laboratory

An example of a plan for this laboratory is shown in figure 11. It provides the space and equipment necessary to learn and develop skills in the operation and minor repair of audiovisual equipment and the repair and maintenance of media materials.

Maximum utilization of the laboratory space is accomplished by combining several activities in one area, extensive use of self-instructional materials and operating the laboratory on an open access basis. The necessary equipment, materials and tools are stored in close proximity to each working area.

Equipment operation procedures can be learned and practiced, using self-instructional materials in the carrels. Several electrical circuits are required so that all of the equipment used in the carrels and at other work stations in the room can be operated at the same time without causing electrical overload.

Each carrel is equipped with magnetic tape cassettes for autotutorial instruction and earphones to prevent distractions and eliminate noise interference from other activities in the room.

Work areas are provided for the various maintenance and repair activities. A table and large projection screen are included in the room facilities for multimedia set up and projection. Whenever possible, self-instructional materials also should be used to teach repair techniques and maintenance procedures.

The audiovisual equipment that students are required to learn to operate can be obtained from a check-out counter, taken to the carrel and set up by the student. Pieces of equipment that

are too heavy or bulky to be easily portable are installed permanently in a carrel. These would include the opaque projector and the 16 mm. projector.

FIGURE 10— *"Hands on" experience is essential for the student to learn to produce a variety of media materials.*

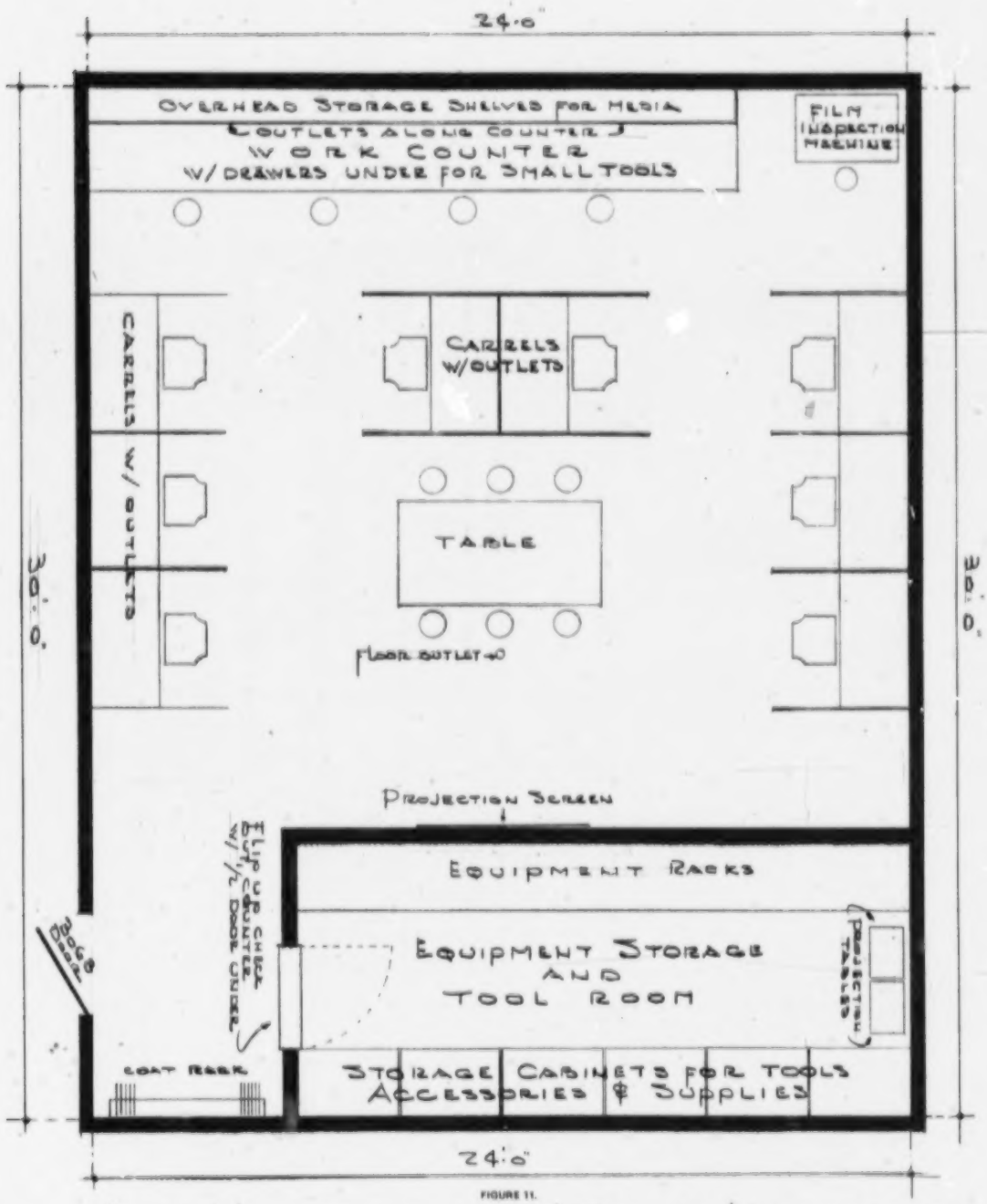
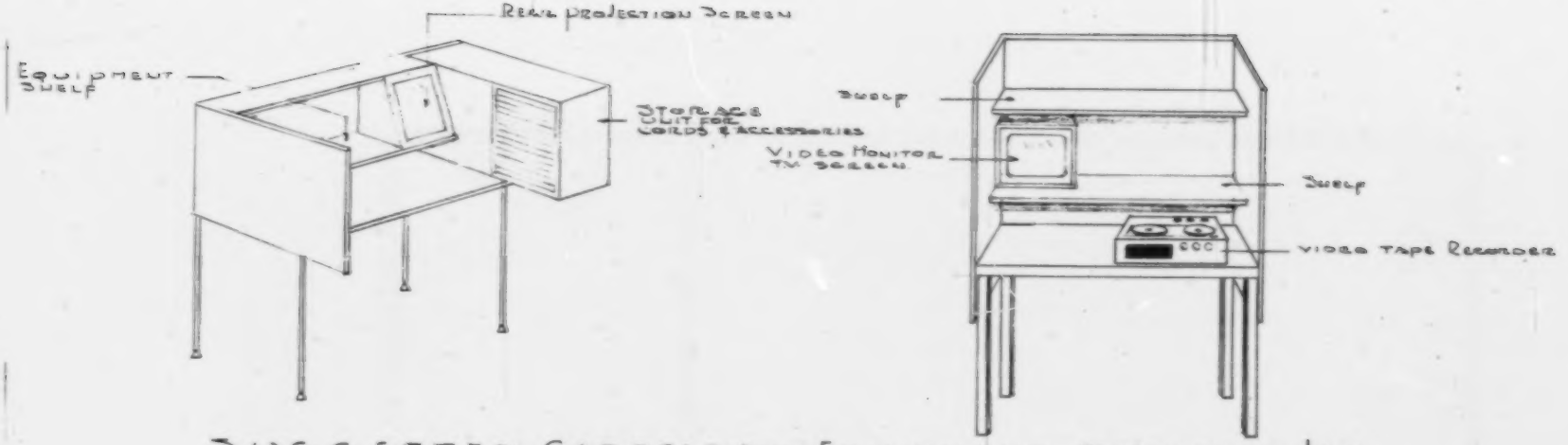


FIGURE 11.

EQUIPMENT OPERATION & REPAIR LABORATORY

FIGURE 11



SUGGESTED CARRELS FOR EQUIPMENT OPERATION LAB.

No Scale

FIGURE 12.

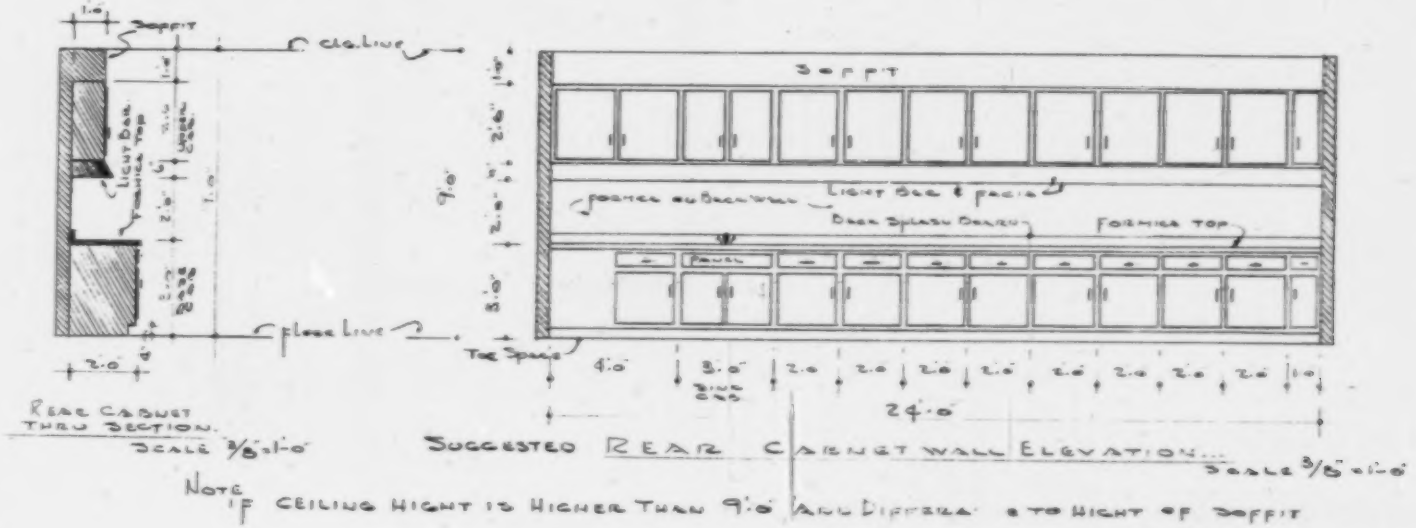


FIGURE 12.

Technical Processes Laboratory and Classroom

This combination laboratory-classroom can be untilizedor all activities that the student must perform in technical processes courses. It is designed to accommodate 24 students.

The multipurpose typing desks in the laboratory provide the storage and typing stations for nine typewriters. When the typewriters are not in use, the desks can be used for students to work on laboratory projects. Electrical outlets should be installed on the floor under each desk for safety and convenience.

The six large 36" by 72" tables provide additional seating for 18 students as well as large work surfaces for the processing of books and other library materials. The tables should have formica or other stain resistant surfaces.

Storage cabinets for supplies must be provided. Shallow storage cabinets above a large work counter accommodate a variety of supplies that are easily accessible. Additional storage drawers should be provided for the convenience of the students so that they can store uncompleted projects rather than carrying them back and forth to class.

A light bar should be mounted above the work counter under the storage cabinets for direct illumination on the work surface. At least two duplex electrical outlets should be installed at the back of the work counter.

A double stainless steel sink should be located in the work counter. Both hot and cold water taps are needed for completion of various projects.

Three sections of book shelves, 4' by 6' are required for the storage of books. The shelves should be standard, heavy-duty library shelving. Card files for instructional and practice purposes as well as standard letter files should be provided.

Two standard blackboards should be available in the room as well as a permanently mounted projection screen. These should be installed at the front of the room for easy access. A combination lectern-desk should be available for the instructor.

FIGURE 13 – *Self-instructional materials in carrels make it possible to have open access laboratories for mediated self-instruction.*

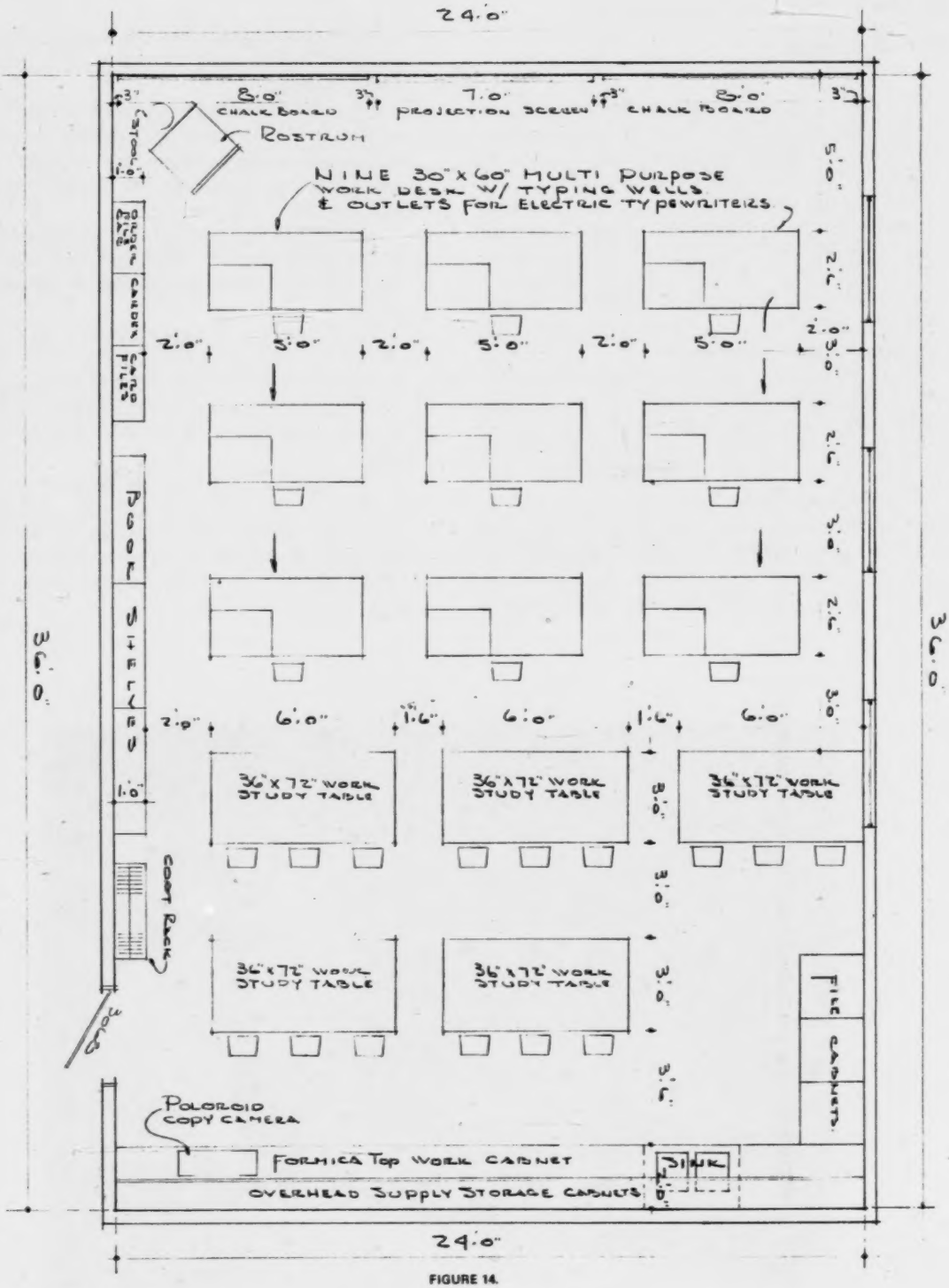


FIGURE 14.

SUGGESTED FLOOR PLAN FOR TECHNICAL PROCESSES LABORATORY & CLASSROOM

Graphic Arts Laboratory

Figure 15 shows a suggested layout of a laboratory for the production and reproduction of print and graphic materials. Students will have access to a wide range of equipment and materials for lettering and mounting, layout and design, and producing overhead transparencies.

The center area of the room is utilized for activities requiring the student to be seated and work individually in a relatively small working area. The plan in figure 15 calls for using twelve 24" by 30" drafting tables and stools. The laboratory should be operated on an open-access basis. Self-instructional programmed materials should be used whenever possible for students to learn basic production skills. Open access scheduling and the use of self-instructional materials will maximize utilization of room space and minimize the amount of production equipment required.

The equipment needed for a particular activity is placed on a counter on either end of the room. Working space is provided on the counter and on large tables adjacent to the counter. Electrical outlets should be regularly spaced along the counter areas to accommodate the equipment indicated in the plan. Some machines require 220-volt circuits. Diazo machines which use ammonia for developing require a vent directly from the machine. Materials, supplies and storage for students' work are kept in cabinets installed over and under the counters. Remaining wall space in the room should be covered with display board to display students' work.

A water outlet and fixtures are needed in the room for several types of graphic reproduction procedures. Storage of sensitive reproduction material requires a refrigerator.

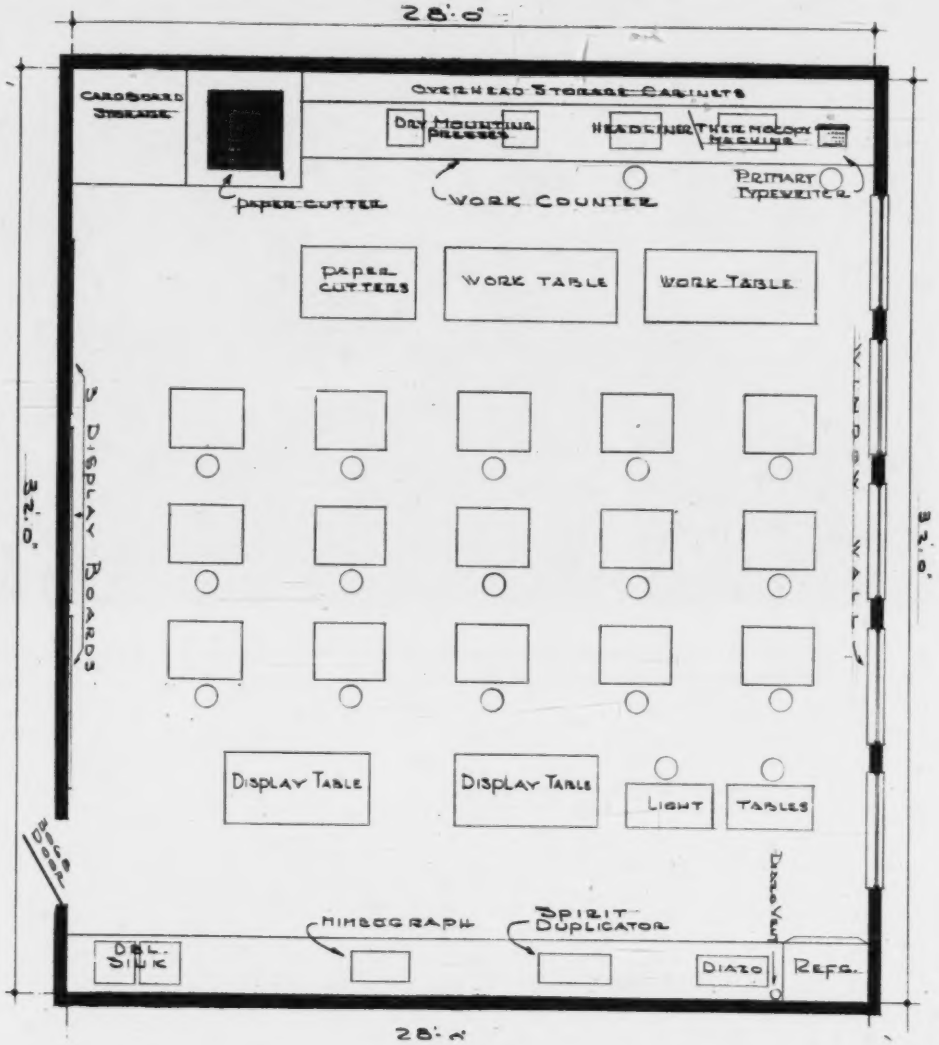


FIGURE 15.

Photo Reproduction Laboratory

Most furniture would be built-in in this room. Standard-size laboratory tables and portable storage cabinets could be used in place of fixed cabinets. Students will be able to do photocopy work utilizing the photocopy stands and the photoslide Repronar. One wall should be plain white so large photo set-ups, three dimensional, flat copy and portable work can be done. The overhead light track is used for even lighting for large or small photocopy work.

Space and equipment for editing motion picture film, and equipment for masking and mounting slides, are included in this laboratory. A refrigerator for film storage is essential. Temperature control is recommended.

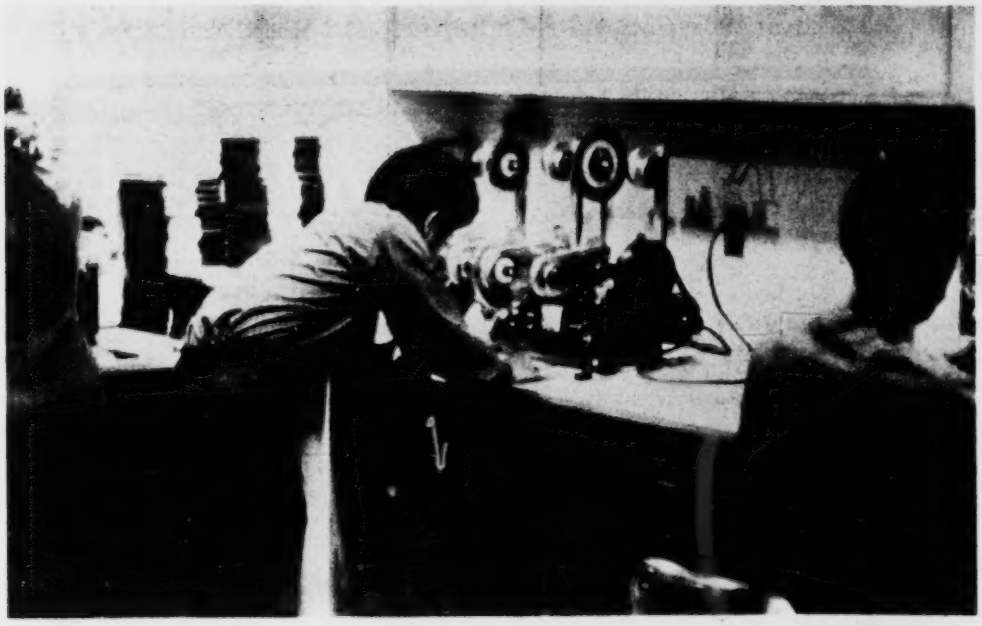


FIGURE 16 — *Equipment should be available for student use to accommodate highly technical learning activities such as sound and film editing and reproduction.*

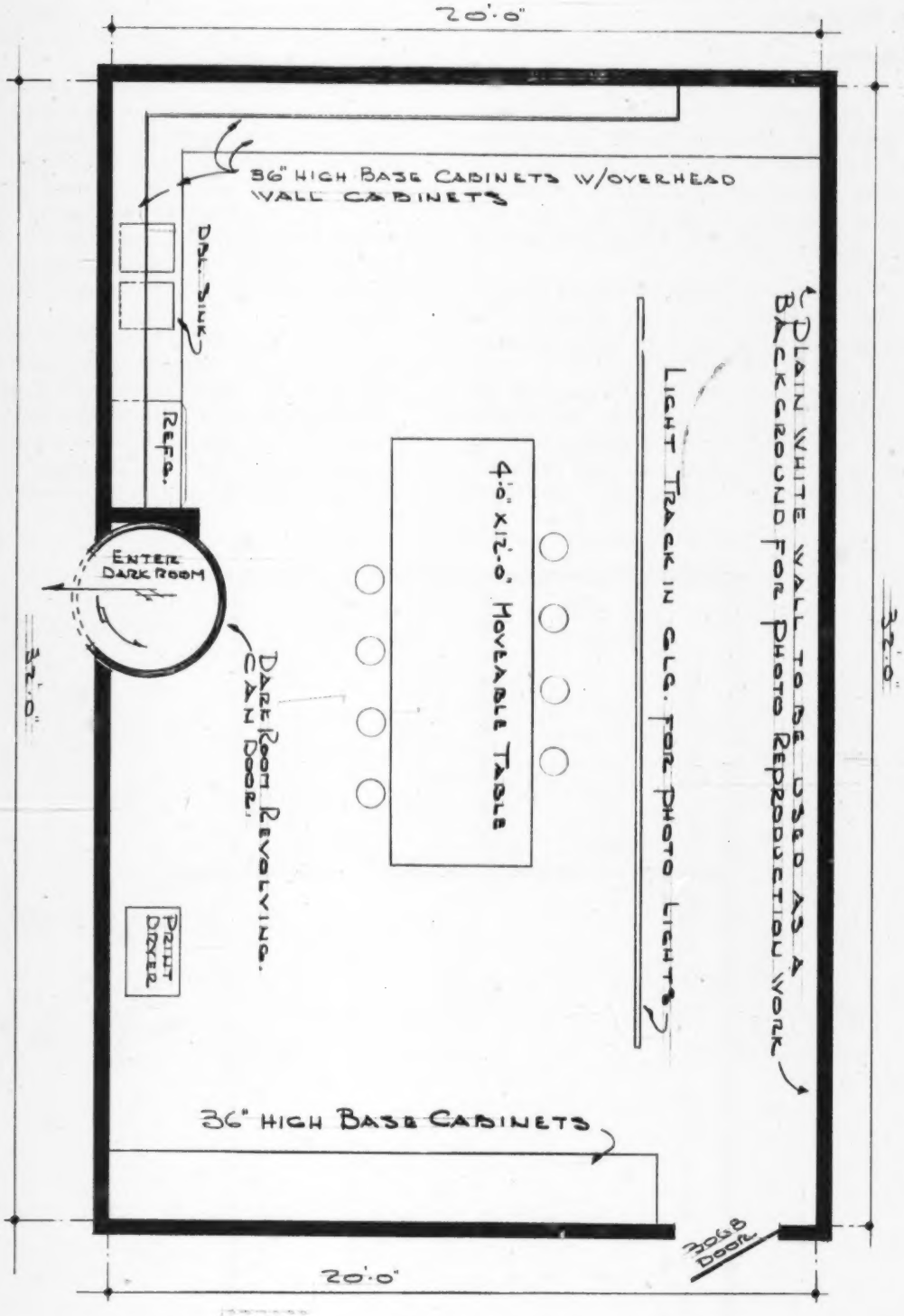

20'-0"
36" HIGH BASE CABINETS W/OVERHEAD WALL CABINETS
DBL. SINK
REFR.
ENTER DARK ROOM
DARK ROOM REVOLVING CAN DOOR
PRINT DRYER
4'-0" X 12'-0" MOVEABLE TABLE
LIGHT TRACK IN CLG. FOR PHOTO LIGHTS
PLAIN WHITE WALL TO BE USED AS A BACKGROUND FOR PHOTO REPRODUCTION WORK
36" HIGH BASE CABINETS
DOUBLE DOOR
32'-0"
32'-0"
20'-0"

FIGURE 17.

Photo Processing

Laboratory

The two adjacent film processing darkrooms and print room are large enough to accommodate 24 students at one time for instructional purposes. Smaller darkrooms could be utilized for instruction and laboratory work if class size is reduced or if scheduling of laboratory sessions is flexible.

The rooms should be kept simple and efficient. However, several features are essential. The rooms must be light tight. The walls should be painted with flat, non-reflecting paint in a dark hue. A double door or some similar device should be installed to permit entering and leaving without letting light into the room. Safelights should be installed in the darkrooms with control switches located conveniently close to the enlarging equipment. A warning light should be adjacent to the door to prevent accidental entry during processing.

Sinks must be provided with automatic temperature control regulators to maintain a constant water temperature. Storage and work counters should be of hard, stain-resistant material, easily cleaned, to avoid chemical damage. The floor also should be covered with stain-resistant and chemical-resistant tile. It is important to keep the rooms and equipment clean at all times if high quality finished work is expected.

The sink area should be equipped with convenient racks and cabinets for equipment chemicals. Separate storage facilities for photographic film and paper should be separated from the sink area to prevent possible chemical contamination. ties for photographic film and paper should be separated from the sink area to prevent possible

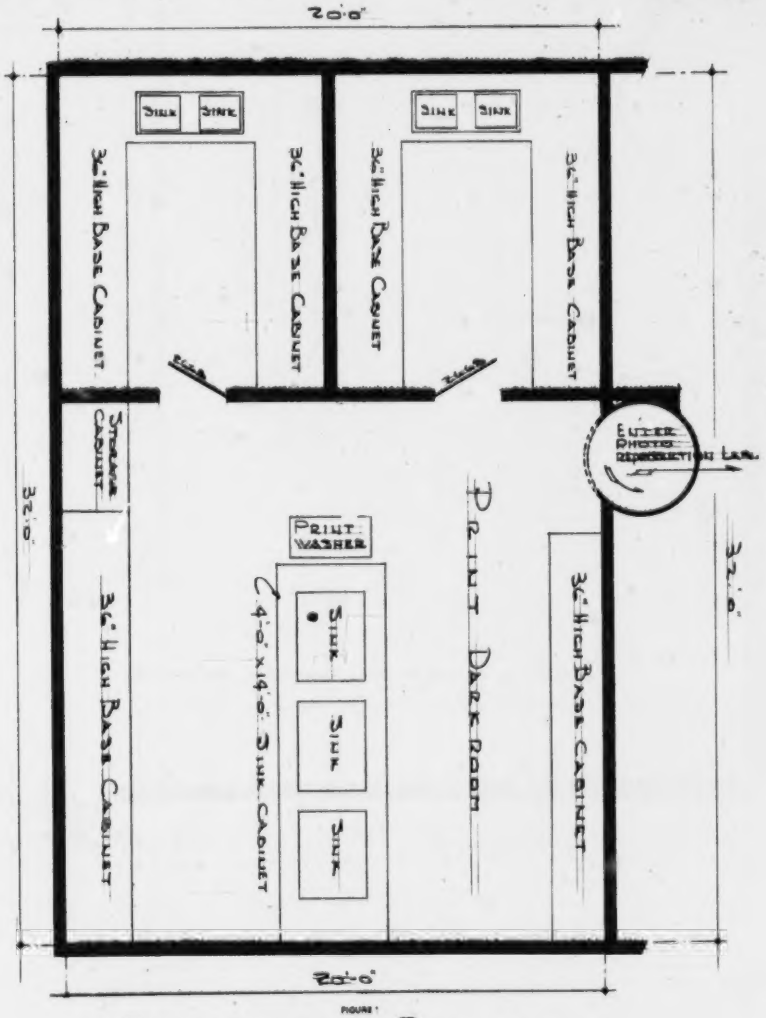


FIGURE 1

PHOTOGRAPHY PROCESSING

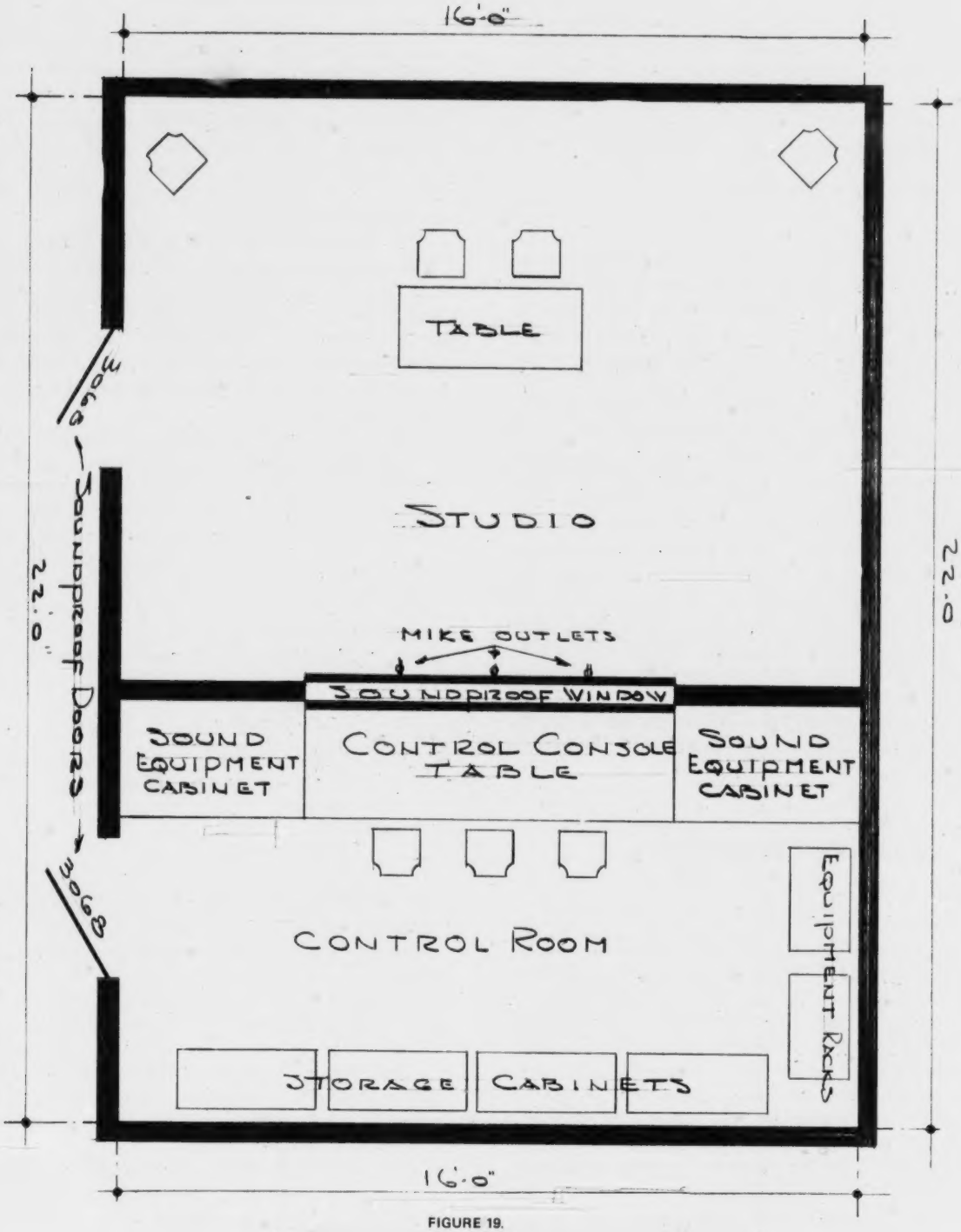


FIGURE 19.

SOUND LABORTORY STUDIO

chemical contamination.

Temperature and humidity control is recommended for comfort and to avoid deterioration of supplies. Several guides for darkroom design and facilities are available commercially and these should be consulted for further data before darkrooms are planned.

Sound Recording and Duplicating Laboratory

This laboratory will provide the students with a facility for original sound recording as well as an area for the duplication of sound from several sources to magnetic tape. Sound recording and synchronizing for multimedia projects are accomplished in this facility. The studio, being separated from the control room, allows the students to work in a soundproof room with one or more persons. The control room will have tape equipment, record equipment, AM-FM radio, sound mixers and duplicating equipment. The duplicating equipment will accommodate cassettes, reel to reel, reel to cassette, and multiple reproduction of original sound recordings.

The studio should be acoustically treated throughout and located away from high noise areas. A soundproof window should separate the studio from the control room. Temperature and humidity control are essential. Circuits of 220 volts are necessary for the operation of the recording and duplicating equipment in the control room.

Equipping the Laboratories and Costs

The cost of equipping laboratories for the Library Technical Assistant curriculum may vary in proportion to the money available. Ideally, a program should start with fully equipped laboratories, but if necessary the required laboratories can be added and equipped as the program develops. Existing space usually can be modified to serve as laboratories for the program. Existing typing laboratories can temporarily be used for technical processes courses with the addition of storage cabinets for supplies and special equipment. The audiovisual equipment in the equipment operation laboratory can be used for general classroom needs if funds are limited. Any available darkrooms can be used until facilities become available. Existing drafting and drawing laboratories can be pressed into dual service as a graphic arts laboratory with the addition of storage facilities, dry mounting and photocopying equipment, paper cutters, sinks and a refrigerator. Thus, the costs of operating the program can be reduced to a minimum until additional funds become available.

The laboratories and equipment herein described also can be utilized for programs in "Instructional Media Technology", "Teacher-Aide Technology" and "Public Relations-Advertising Technology" and thus spread the total cost over a number of programs.

The coordinator of the technical program is best qualified to make final decisions on the selection of laboratory equipment. Specifications should be developed in respect to mechanical components and performance and operating standards for all equipment in order to avoid costly mistakes or unwise decisions with regard to equipment.

Frequently, surplus equipment and furniture can be obtained from private or public agencies at greatly reduced costs or as gifts. Acquisition of surplus property within the states must be made through State Agencies for Surplus Property. The State Director of Vocational and Technical Education in each state can provide information on the location of the government surplus distributing agency in his state and the name of the person in charge. Information on government surplus property also may be obtained by writing to:

Chief, Surplus Property Utilization Division
U.S. Department of Health, Education
and Welfare
Washington, D.C. 20201

Free and surplus equipment can frequently be obtained from private agencies. An appeal to local organizations, industries and institutions can result in the acquisition of needed equipment and furniture. However, it is important to exercise judgment and care in acquiring surplus property or in accepting gifts of equipment. Specific plans for use and sound justification for the need should be established prior to the purchase of any surplus material or the acceptance of any gift of equipment.

Only technically competent and responsible persons should be delegated the authority to accept gifts or acquire surplus property for the laboratories. With these precautions in mind, resourceful coordinators often can obtain essential equipment for their laboratories at reasonable or no cost.

The specifications for laboratory equipment listed in this section are typical for equipment to be used in teaching library technical assistants and are offered as an assistance to the coordinator who is responsible for purchasing the equipment. The estimates that follow are based on the costs of equipping laboratories to accommodate 24 students. The estimates are based on the purchase price of new equipment at the date of this publication. The estimates do not include costs of office equipment, conventional classrooms or laboratories necessary for the general education courses. They are specifically for laboratories and rooms needed for the technical specialty.

Major items of equipment necessary for each laboratory are listed, and an estimate of their costs is given as a gross figure allowing for a reasonable range to reflect variations in costs of brand names and local area price differences. Since comparable equipment may vary in cost in different locations, individual items are not priced. It is suggested that each institution develop specifications for all equipment and release the specifications for competitive bids. Only equipment that is durable and of high quality should be considered. Inferior, less costly equipment will prove unsatisfactory under conditions of continuous classroom usage.

When the program has been initiated and the necessary equipment has been purchased, it will still be necessary to have an annual equipment and supply budget. These funds are required to replace or repair equipment, restock expendable items and purchase new equipment to meet regional modifications of the program. At least $2,000 to $3,500 per year should be planned to meet such needs and more may be required if new types of equipment are developed and needed to keep the program current. The first-year operating budget should be double that of the projected subsequent annual budget to provide for the acquisition of an initial stock of expendable supplies and materials.

Equipment Operation and Repair Laboratory

Item	*Number Required*
Carrels	8
Chairs	8
Stools	11
General purpose laboratory table, 72" x 36"	1
Heavy duty equipment racks	4
Storage cabinets, 36" x 24" x 72"	6
Overhead projector	1
Opaque projector	1
Slide projector	4
Tape recorder – reel to reel	4
Tape recorder – cassette	8
Filmstrip projector	4
16 mm. projector	4
8 mm. projector – cartridge load	1
8 mm. projector – reel to reel	1
Filmstrip viewer	8
Earphone headsets	8
Dissolve unit	1
Motion adaptor for overhead transparencies	1
Motion adaptor – slides	1
Tape slicer	4
Rear projection screen	8
Wall mounted projection screen	1
Equipment cart	2
Take up reel	10
Slide tray	8
Repair tools, sets	4
Total estimated cost	$7,000 to $8,100

Technical Processes Laboratory and Classroom

Item	*Number Required*
Typing tables, 60" x 30"	9
Tables, 36" x 72"	5
Chairs	24
Rostrum and chair	1
Bookshelves (sections)	3
File cabinet, 4-drawer, letter size	4
Card file, 12-drawer for standard size catalog cards	2
Cardex	1
Electric typewriter	9
Overhead projector	1
Wall mounted projection screen	1
Chalkboard	2
Polaroid camera and stand	1
Se-lin labeler	1
Paper cutter	1
Electric eraser	4
Reference and resource books – classification schedules, cutter tables and other technical processing tools	2 sets
Total estimated cost	$6,700 to $7,600

Graphic Arts Laboratory

Item	Number Required
Drafting tables, 24" x 30"	12
Drafting stools	12
Tables, 72" x 36"	5
Dry mounting press	2
Primary typewriter	1
Spirit duplicator	1
Mimeograph machine	1
Multilith machine	1
Opaque projector	1
Thermocopy machine	1
Diazo machine	1
Headliner	1
Book copier	1
Overhead projector	1
Tacking iron	2
Household hand iron	2
Paper cutter	2
Drawing instruments (sets)	12
Electric eraser	6
Wrico sets	4
Light box	4
Yardsticks	24
T-squares	12
Irregular curves	12
Parallel bars, wood with plastic edges	12
Scissors	12
Display boards	2
Screen	1
Refrigerator	1
Total estimated cost	$5,250 to $5,700

Photo-Reproduction Laboratory

Item	Number Required
Copy stand and lights	4
35 mm. single-lens reflex camera	4
8 mm. camera	4
Film rewinder	4
Film splicer	4
Film editing equipment	4
Light box	3
Slide reproducer	1
Heat press slide mounter	1
Table on wheels, 4' x 12'	1
Movable stool	8
Refrigerator	1
Total estimated cost	$2,950 to $3,700

Photo-Processing Laboratory

Item	Number Required
Negative file	1
Safelight	6
Enlarger	2
Print washer	1
Developing tank	8
Print dryer	1
Trays, 11" x 14"	6
Trays, 8" x 10"	6
Timers	4
Thermometer	4
Total estimated cost — $2,000 to $2,400, less cabinetry	

Sound Recording and Duplicating Laboratory

Item	Number Required
Conference table, 48" x 32"	1
Chair	
Control console table, 96" x 32"	1
Mixing console	1
Sound equipment cabinet, 32" x 48"	2
Equipment rack, 32" x 18" x 72"	2
General storage cabinet, 36" x 18" x 72"	4
Record player	2
Cassette — reel to reel	2
AM-FM tuner	1
Amplifiers	4
Tape decks — reel to reel	3
Microphones	6
Mike stands	6
Tape duplicating equipment	2
Switching rack	1
Magnetic tape on reels	48
Total estimated cost	$4,650 to $5,900

Summary of Costs

The preceding lists of laboratory equipment and supplies represent minimum cost estimates and do not include the cost of built-in cabinetry, sinks, or special lights and electrical outlets. In addition to the basic equipment costs, additional sums of from $2,000 to $5,000 should be figured for the cost of installing equipment, plumbing and electrical modifications, and fixed cabinetry

FIGURE 20— *Buying and acquisition of suitable government surplus equipment, such as microfilm readers, may make it possible to equip laboratories at low cost.*

and for an initial capital outlay for supplies and materials. Also, at least $250 should be allocated in the budget for supplies and computer rental time for the teaching of "Application of Computer and Automation Technology to the Library." A continuing budget for supplies, and for repair and maintenance of the laboratories and equipment should be incorporated in budget planning. Advantageous buying, acquisition of suitable government or private surplus equipment, or unusually ingenious use of components built into teaching systems by the instructional staff may make it possible to equip laboratories for less cost.

The total cost of laboratory equipment and supplies, excluding conventional classrooms and offices for a Library Technical Assistant program based upon 1971 prices, is estimated as follows:

Laboratory Facility	*Estimated Cost*
Equipment Operation and Repair Laboratory	$7,000 to $8,100
Technical Processes Laboratory and Classroom	6,700 to 7,600
Graphic Arts Laboratory	5,250 to 5,700
Photo-Reproduction Laboratory	2,950 to 3,700
Photo-Processing Laboratory	2,000 to 2,400
Sound Recording and Duplicating Laboratory	4,650 to 5,900
Total estimated cost of laboratory equipment	$28,550 to $33,400

The foregoing estimates do not provide for the cost of the building itself, nor for the remodeling of existing facilities to provide laboratories for the program. The total estimated cost of $28,550 to $33,400 to fully equip laboratories for the Library Technical Assistant curriculum may, if necessary, be reduced in regard to quantities of each type of equipment if the initial enrollment in the program does not exceed 20 students. Additional units of equipment can then be added as enrollment increases.

BIBLIOGRAPHY

Technical Books

American Association of School Librarians. *Standards for School Media Programs.* Chicago: American Library Association, 1969.

American Library Association. Association of College and Research Libraries. *Standards for College Libraries.* Chicago: Association of College and Research Libraries, 1959.

———. *Circulation Policies of Academic Libraries.* Chicago: The Association, 1970.

———. Committee of the Public Library Association. *Minimum Standards for Public Library Systems.* Chicago: The Association, 1967.

———. *Personnel Organization and Procedure: a Manual Suggested for Use in Public Libraries,* 2nd. ed. Chicago: American Library Association, 1968.

———. Public Library Association. Interlibrary Cooperation Committee. *Interlibrary Cooperation Programs.* (Public Library Reporter No. 12) Chicago: The Association, 1967.

———. *Standards for Library Service for the Blind and Visually Handicapped.* Chicago: The Association, 1967.

———. *Standards for Library Services in Health Care Institutions.* Chicago: The Association, 1967.

———. Standards Revision Committee of the American Association of State Libraries. *Standards for Library Functions at the State Level,* rev. ed. Chicago: The Association, 1970.

———. *Studying the Community.* Chicago: The Association, 1960.

———. Subcommittee of the Public Library Committee. *Interim Standards for Small Public Libraries: Guidelines Toward Achieving the Goals of Public Library Service.* Chicago: The Association, 1967.

Association for Educational Communications and Technology. *Standards for Cataloging Nonprint Materials,* rev. ed. Washington, D.C.: The Association, 1971.

———. *The Message is You.* Washington, D.C.: The Association, 1971.

———. *Training Programs for Media Support Personnel: An Annotated Directory,* rev. ed. Washington, D.C.: The Association, 1971.

Barton, M. N. and Bell, M. V., ed. *Reference Books, a Brief Guide for Students and Other Users of the Library,* 7th ed. Baltimore: Enoch Pratt Free Library, 1970.

Bassett, G. A. *Practical Interviewing.* New York: Macmillan, 1965.

Bathurst, Leonard H., and Bruce Klein. *A Visual Communications System.* Dubuque, Iowa: William C. Brown Book Co., 1966.

Batty, C. D. *An Introduction to the Seventeenth Edition of the Dewey Decimal Classification.* London: Clive Bingley, 1967.

Becker, Joseph and Robert M. Hayes. *Information Storage and Retrieval: Tools, Elements, Theories.* New York: John Wiley, 1963.

Bidlack, Russell E. *Typewritten Catalog Cards: A Manual of Procedure and Form.* Ann Arbor: Campus Publishers, 1959.

Bishop, Maxine H. *Dynamic Supervision.* New York: Macmillan Co., 1969.

Bourne, Charles P. *Methods of Information Handling.* New York: John Wiley, 1963.

Boyd, Jessie et al. *Books, Libraries and You.* New York: Chas. Scribner and Sons, 1965.

Broderick, Dorothy M. *An Introduction to Children's Work in Public Libraries.* New York: H. W. Wilson, 1965.

Brown, James W., and Harcleroad, Fred F. *AV Instruction: Media and Methods,* 3rd ed. New York: McGraw-Hill, 1969.

Brown, James W., Lewis, Richard B., and Harcleroad, Fred F. *Audiovisual Instruction: Media and Methods,* 3rd ed. New York: McGraw-Hill, 1969.

Brown, James W. and Norberg, Kenneth D. *Administering Educational Media.* New York: McGraw-Hill, 1965.

Burkhalter, Barton R., ed. *Case Studies in Systems Analysis in a University Library.* Metuchen, N.J.: Scarecrow Press, 1968.

Cheney, Frances Neel. *Fundamental Reference Sources.* Chicago: American Library Association, 1971.

Conant, Ralph W., ed. *The Public Library and the City.* Cambridge, Mass.: MIT Press, 1965.

Coplan, Kate, and Castagna, Edward, eds. *Library Reaches Out.* Dobbs Ferry, N.Y.: Oceana, 1965.

Cox, N. S. M., et al. *The Computer and the Library.* Hamden, Conn.: Archon Books, 1967.

Cuadra, C. A., ed. *Annual Review of Information Science.* New York: Wiley, 1966.

Daily, Jay E. and Myers, Mildred S. *Cataloging for Library Technical Assistants.* Washington, D.C.: Communication Service Corp., 1969.

Dale, Edgar. *Audiovisual Materials in Teaching,* 3rd ed. New York: Holt, Rinehart and Winston, Inc., 1969.

———. *Audiovisual Methods in Teaching,* 3rd ed. New York: Dryden Press, 1969.

———. *Designing Instructional Visuals.* Austin, Texas: University of Texas, Instructional Media Center, 1968.

Davis, Harold S. *Instructional Materials Center: An Annotated Bibliography.* Cleveland: Educational Research Council of Greater Cleveland, 1967.

Demco Educational Corporation. *Mending Guide for Books, Magazines, Pamphlets, Periodicals.* Madison, Wis.: Demco Corp., Library Supply Division, N.D.

Dyer, Christopher and others. *Role of School Libraries in Education.* Hamden, Conn.: Shoestring Press, 1970.

Erickson, Carlton W. H. *Administering Instructional Media Programs.* New York: The Macmillan Company, 1968.

———. *Fundamentals of Teaching with Audiovisual Technology.* New York: Macmillan Co., 1965.

Foskett, A. C. *The Subject Approach to Information.* London: Bingley, 1969.

Foster, Edith. *Library in the Small Community.* Chicago: American Library Association, 1963.

Gates, Jean K. *Introduction to Librarianship.* New York: McGraw-Hill, 1968.

Gaylord Bros., Inc. *Gaylord's Bookcraft: A Complete Manual on Book Repair.* Syracuse, N.Y., 1966.

Gerlach, Vernon S. and Ely, Donald P. *Teaching and Media.* Englewood Cliffs, N.J.: Prentice Hall, 1971.

Gillespie, John and Lembo, Diana. *Introducing Books, A Guide for the Middle Grades.* New York: Bowker, 1970.

Green, Alan C., ed. *Educational Facilities with New Media.*

Washington, D.C.: Department of AV Instruction, National Education Association, 1966.
Grogan, D. *Science and Technology, an Introduction to the Literature*. London: Bingley, 1970.
Hartsell, Horace, ed. *Instructional Graphics for Television*. Austin, Texas: Educational Media Laboratories, 1968.
Hawken, William R. *Copying Methods Manual*. Chicago: American Library Association, 1966.
Hayes, Robert M. *The Concept of an On-line Total Library System* (ALA Library Reports). Chicago: American Library Association, 1965.
Hiatt, Peter and Drennan, Henry. *Public Library Service for the Functionally Illiterate*. Chicago: American Library Association, 1967.
Hicks, Warren B. and Tillin, Alma. *Developing Multi-Media Libraries*. New York: Bowker, 1970.
Immroth, John Phillips. *A Guide to Library of Congress Classification*. Rochester, N.Y.: Libraries Unlimited, Inc., 1968.
Jacobs, Leland, ed. *Using Literature with Young Children*. New York: Teacher's College Press, 1965.
Johnson, A. F. *A Programmed Course in Cataloging and Classification*. London: Andre Deutsch, Ltd., 1968.
Johnson, E. D. *History of Libraries in the Western World*. Metuchen, N.J.: Scarecrow, 1970.
Jordan, Robert. *Tomorrow's Library: Direct Access and Delivery*. New York: Bowker, 1970.
Joy, Lewis. *Libraries for the Handicapped*. London: Library Association, 1970.
Katz, William A. *Introduction to Reference Work:* Vol. I, *Basic Information Sources:* Vol. II. New York: McGraw-Hill, 1969.
Kemp, Jerrold E. *Planning and Producing Audiovisual Materials*, 2d ed. San Francisco: Chandler Publishing Co., 1968.
———. *Local Production Techniques*. Austin, Texas: University of Texas, Instructional Media Center, 1967.
Kent, A. and Lancour, H., eds. *Encyclopedia of Library and Information Science*. New York: Dikker, 1970.
Kimber, Richard T. *Automation in Libraries* (International Series of Monographs in Library and Information Science). Oxford, England: Pergamon, 1968.
Knight, Douglas M. and Nourse, E. S. *Libraries at Large: Tradition, Innovation, and the National Interest; the Resource Book Based on the Materials of the National Advisory Commission on Libraries*. New York: Bowker, 1969.
Lancaster, F. W. *Information Retrieval Systems*. New York: Wiley, 1968.
Larrick, Nancy. *A Parents Guide to Children's Reading*. New York: Doubleday, 1969.
Licklider, J. D. R. *Libraries of the Future*. Cambridge, Mass.: M.I.T. Press, 1965.
Lowrie, Jean E. *Elementary School Libraries*, 2nd ed. Metuchen, N.J.: Scarecrow, 1970.
Miller, Shirley. *The Vertical File and its Satellites*. Littleton, Colorado: Libraries Unlimited, Inc., 1971.
Minor, Ed. and Frye, Harvey R. *Technique for Producing Visual Instructional Media*, rev. ed. New York: McGraw-Hill, 1970.
National Education Association, Research Division. *School Library Personnel Task Analysis Survey*. Chicago: American Association of School Librarians, 1969.
Nyren, Dorothy, ed. *Community Service*. (Public Library Reporter No. 16). Chicago: American Library Association, 1969.
Office of the Chancellor, California Community Colleges. *The Library Technical Assistant Program: Guidelines and Course Content for Community College Programs*. Sacramento, Calif.: Office of the Chancellor, The California Community Colleges, 1970.
Palovic, Lora and Goodman, Elizabeth. *The Elementary School Library in Action*. West Nyack, New York: Parker, 1968.
Passman, S. *Scientific and Technical Communication*. New York: Pergamon, 1969.
Paul, Grace. *Short Course in Skilled Supervision*. Chicago: Dartnell Corp., 1966.
Pennell, Lois G., ed. *The Bookmobile—A New Look*. (Public Library Reporter No. 14). Chicago: American Library Association, 1969.
Petru, William C. *The Library: An Introduction for Library Assistants*. New York: Special Libraries Association, 1967.
Piercy, Esther J. *Commonsense Cataloging*. New York: H. W. Wilson Company, 1965.
Riendeau, Albert J. *The Role of the Advisory Committee in Occupational Education in the Junior College*. Washington: American Association of Junior Colleges, 1967.
Rescoe, A. Stan. *Cataloging Made Easy*. New York: Scarecrow Press, 1962.
Saunders, Helen E. *Modern School Library: Its Administration as a Materials Center*. Metuchen, N.J.: Scarecrow, 1968.
Sawyers, Frances C. *Summoned by Books*. New York: Viking, 1965.
Scuorzo, Herbert E. *Practical Audiovisual Handbook for Teachers*, West Nyack, N.Y.: Parker Publishing Co., 1969.
Seely, Pauline A. *ALA Rules for Filing Catalog Cards*, 2nd ed., abridged. Chicago: American Library Association, 1968.
Shera, Jesse H. *Libraries and the Organization of Knowledge*. Hamden, Conn.: Shoestring Press, 1965.
Shores, Louis, et. al. *The Tex-Tec Syllabi: Courses of Study for Library Technical Associates*. Washington, D.C.: Communications Service Corp., 1968.
Sinclair, Dorothy. *Administration of the Small Public Library*. Chicago: American Library Association, 1965.
Strauss, Lucille J. and others. *Scientific and Technical Libraries: Their Organization and Administration*. New York: Wiley, 1964.
Swarthout, Charlene. *School Library as Part of the Instructional System*. Metuchen, N.J.: Scarecrow, 1967.
Thompson, James. *Introduction to University Library Administration*. Hamden, Conn.: Shoestring Press, 1970.
Thompson, Sarah K. *Interlibrary Loan Procedure Manual*. Chicago: American Library Association, 1970.
Treuind, Roberta B. *Open the Book*. New York: Scarecrow, 1962.
University of Texas, Visual Instruction Bureau. *Better Bulletin Boards*. Austin, Texas: Univ. of Texas, n.d.
———. *Designing Instructional Visuals*. Austin, Texas: Univ. of Texas, n.d.
———. *Educational Displays and Exhibits*. Austin, Texas: Univ. of Texas, n.d.
———. *Instructional Display Boards. Austin, Texas:* Univ. of Texas, n.d.
———. *Lettering Techniques*. Austin, Texas: Univ. of Texas, n.d.
———. *Local Production Techniques*. Austin, Texas: Univ. of Texas, n.d.
———. *Models for Teaching*. Austin, Texas: Univ. of Texas, n.d.
———. *Production of 2 1/2 Slides for School Use*. Austin, Texas: Univ. of Texas, n.d.
———. *The Tape Recorder*. Austin, Texas: Univ. of Texas, n.d.

———. *Using Tear Sheets.* Austin, Texas: Univ. of Texas, n.d.
White, Ruth M. *Public Library Policies* (Public Library Reporter No. 9). Chicago: American Library Association, 1966.
Wilson, Howard. *Improving Supervisory Skills.* Deerfield, Ill.: Administrative Research Associates, 1969.
Winchell, Constance M. *Guide to Reference Books, Supplement 1, 1965-1966,* 8th ed., ed. by Eugene P. Sheehy. Chicago: American Library Association, 1968.
———. *Guide to Reference Books, Supplement 2,* 8th ed., ed. by Eugene P. Sheehy. Chicago: American Library Association, 1970.
Wittich, Walter A. and Schuller, Charles F. *Audiovisual Materials: Their Nature and Use.* New York: Harper and Row, 1967.
Wynar, Bohdan S., ed. *American Reference Books Annual,* 2 v. Littleton, Colorado: Libraries Unlimited, 1970.
———. *Introduction to Cataloging and Classification,* 3rd ed. Littleton, Colorado: Libraries Unlimited, 1967.

Technical Journals and Periodicals

See Appendix D for a listing of technical journals, periodicals and trade magazines which are appropriate for support of the Library Technical Assistant curriculum.

General Books

Adcock, C. J. *Fundamentals of Psychology.* Baltimore: Penguin Books, 1970.
Allen, Donald S. and Ordway, Richard J. *Physical Science.* Princeton, New Jersey: Van Nostrand, 1968.
Altenbernd, Lynn. *Exploring Literature.* New York: Macmillan, 1970.
Baker, Jeffrey J. W. and Garlan, E. Allen. *A Course in Biology.* Reading, Mass.: Addison Wesley, 1968.
Banta, Martha and Satterwhite, Joseph N. *Discovery and Response.* New York: Macmillan, 1970.
Baur, John I. H. *Revolution and Tradition in Modern American Art.* New York: Frederick A. Praeger, 1967.
Becker. Systems Analysis: *Prelude to Library Data Processing.* Chicago, Ill.: American Library Association, 1965.
Bensman, Joseph. *Dollars and Sense.* New York: Macmillan, 1967.
Berelson, Bernard and Steiner, Gary A. *Human Behavior.* New York: Harcourt, Brace & World, 1967.
Bierstedt, Robert. *The Social Order.* New York: McGraw-Hill, 1970.
Biesanz, John and Biesanz, Mavis. *Introduction to Sociology.* New Jersey: Prentice-Hall, 1969.
Blackburn, Robert T. *Interrelations: The Biological and Physical Sciences.* Glenview, Ill.: Foresman, 1966.
Booth, Verne H. *Elements of Physical Science: The Nature of Matter and Energy.* New York: Macmillan, 1970.
Broom, Leonard, and Selznick, Philip. *Sociology.* New York: Harper and Row, 1968.
Buehler, E. Christian and Linkugel, William A. *Speech Communication.* New York: Harper & Row, 1969.
Cailleaux, Andre. *Anatomy of the Earth.* New York: World University Library, McGraw-Hill, 1968.
Casty, Alan. *Mass Media and Mass Man.* New York: Holt, Rinehart and Winston, 1968.
Clark, Kenneth. *Civilization.* New York: Harper and Row, 1969.
Cleaver, Dale. *Art: An Introduction.* Chicago: Harcourt, Brace and World, 1966.
Cleaver, Eldridge. *Soul On Ice.* New York: McGraw-Hill, 1968.
Cohen, Sidney. *The Drug Dilemma.* New York: McGraw-Hill, 1969.
Cox, Frank. *Psychology.* Dubuque, Iowa: William C. Brown, 1970.
Crosby, Harry H. and Bond, George R. *The McLuhan Explosion.* New York: American Book Company, 1968.
Davis. *Computer Data Processing.* Hightstown, New Jersey: McGraw-Hill, 1969.
De la Croix, Horst and Tansey, Richard. *Art Through the Ages,* 5th ed. New York: Harcourt, Brace and World, 1970.
De Lisle, Harold and others. *The Personal Response to Literature.* New York: Houghton Mifflin, 1971.
De Long, Patrick. *Art in the Humanities.* Englewood Cliffs, New Jersey: Prentice-Hall, 1965.
Dember, William N. and Jenkins, James J. *General Psychology: Modeling Behavior and Experience.* Englewood Cliffs, N.J.: Prentice-Hall, 1970.
Dentler, Robert. *American Community Problems.* New York: McGraw-Hill, 1968.
Dressler, David. *Sociology: The Study of Human Interaction.* New York: Alfred A. Knopf, 1969.
Dudley, Louise and Faricy, Austin. *The Humanities,* 4th ed. New York: McGraw-Hill, 1967.
Dyal, James A. *Readings in Psychology.* New York: McGraw-Hill, 1967.
Elsbree, Langdon and Bracher, Frederick. *Heath's College Handbook of Composition,* 7th ed. Boston: D. C. Heath, 1967.
Erickson, Erik H. *Childhood and Society.* New York: W. W. Norton, 1968.
———. *Identity: Youth and Crisis.* New York: W. W. Norton, 1968.
Erlich, Paul R. *The Population Bomb.* New York: Ballantine Books, 1968.
Eysenneck, H. S. *Sense and Nonsense in Psychology.* Baltimore: Penguin, 1966.

Fabun, Don. Communications: *The Transfer of Meaning.* Beverly Hills, Cal.: Glencoe Press, 1968.
Feingold. *Introduction to Data Processing.* Dubuque, Iowa: Wm. C. Brown Co., 1968.
Fernald, Dodge L., Jr. and Fernald, Peter S. *Overview in General Psychology: A Basic Program.* Boston: Houghton Mifflin Co., 1968.
Gallo, Joseph D. and Rink, Henry W. *Shaping College Writing.* Chicago: Harcourt, Brace & World, 1968.
Gamow, George. *Matter, Earth, and Sky.* Englewood Cliffs, New Jersey: Prentice-Hall, 1967.
Gayelin, Philip L. and Cater, Douglas. *American Media: Adequate or Not?* Washington, D.C.: American Enterprise Institute for Public Policy Research, 1970.
Goin, Coleman T. and Goin, Olive B. *Man and the Natural World: An Introduction to Life Science.* New York: Macmillan, 1970.
Gombrich, E. H. *The Story of Art.* New York: Phaidon, 1968.
Gorman, Benjamin. *Social Themes.* New Jersey: Prentice-Hall, Inc., 1971.
Gould, James and Kiefer, H. C. *The Western Humanities.* Chicago: Holt, Rinehart and Winston, 1971.
Grier, William H. and Cobbs, Prince M. *Black Rage.* New York: Bantam, 1969.
Griffin, Jacquelin P. and Proteet, G. Howard. *Sentence Strategies: Writing for College.* Chicago: Harcourt, Brace Jovanovich, 1970.
Guthrie, Robert V. *Psychology in the World Today.* Reading, Mass.: Addison-Wesley, 1968.
Hayakawa, S. I. *Language in Thought and Action.* New York: Harcourt, Brace & World, 1964.
Hershey, Gerald L. and Lugo, James O. *Living Psychology: An Experimental Approach.* London: Macmillan, 1970.
Hibbs, Eleanore C. *Writing. Fact and Imagination.* Englewood Cliffs, New Jersey: Prentice-Hall, 1971.
Hilgard, Ernest R. and Atkinson, Richard C. *Introduction to Psychology.* New York: Harcourt, Brace & World, Inc., 1969.
Horton, Paul B. and Junt, Chester L. *Sociology.* New York: McGraw-Hill, 1968.
Innes, Harold A. *The Bias of Communication.* Toronto: U. of Toronto Press, 1968.
International Business Machines. *Library Automation—Computer Produced Book Catalog.* Local IBM Office: GE 20-0333.
———. *Library Application on S/360 at Florida State University.* Local IBM Office: GK 20-0362.
Jackson, Wes. *Man and the Environment.* Dubuque, Iowa: William C. Brown, 1971.
Janson, H. W. and Kerman, Joseph. *A History of Art and Music.* Englewood Cliffs, New Jersey: Prentice-Hall, 1967.
Jordon, Furneaux. *A Concise History of Western Architecture.* New York: Harcourt, Brace & World, 1969.
Kapstein, I. J. *Expository Prose: An Analytic Approach.* New York: Harcourt, Brace & World, 1970
Kenniston, Kenneth. *The Uncommitted: Alienated Youth in American Society.* New York: Harcourt & Brace, 1965.
Kimball, John W. *Biology.* Reading, Mass.: Addison Wesley, 1968.
Krech, David, Drutchfield, Richard S., and Livson, Norman. *Elements of Psychology.* New York: Alfred A. Knopf, 1969.
Lee, C. P. *Library Resources: How to Research and Write a Paper.* Englewood Cliffs, New Jersey: Prentice-Hall, 1971.
Legett, Glenn; Mean, David and Charvat, William. *Prentice-Hall Handbook for Writers,* 5th ed., 1970. Englewood Cliffs, New Jersey: Prentice-Hall, 1970.
Levy, Morton. *College Workbook of Composition.* Lexington, Mass.: D. C. Heath, 1969.
Lewis, Oscar. *A Death in the Sanchez Family.* New York: Vintage Books, 1970.
Loewy, Ariel G. and Siekevitz, Philip. *Cell Structure and Function.* New York: Holt, Rinehart & Winston, 1969.
Lundberg, George A., et al. *Sociology.* New York: Harper & Row, 1968.
Mack, Raymond W. *Prejudice and Race Relations.* Chicago: Quadrangle Books, 1970.
Mayer, Kurt B. and Buckley, Walter. *Class and Society.* New York: Random House, 1969.
McGinnis, Joe. *The Selling of the President, 1968.* New York: Trident Press, 1969.
McKinney, Fred. *Psychology in Action.* New York: Macmillan, 1967.
McLuhan, Marshall. *Understanding Media.* New York: McGraw-Hill, 1964.
Merrill, Francis. *Society and Culture.* New Jersey: Prentice-Hall, 1965.
Meserole, Harrison and others, ed. *American Literature Tradition and Innovation.* Lexington, Mass.: D. C. Heath, 1969.
Mills, Vaden W., Sherwood, G. Ray and Parsons, Willard H. *College Physical Science.* New York: Harper & Row, 1969.
Morris, Desmond. *The Naked Ape.* New York: McGraw-Hill, 1967.
Nason, Alvin. *Essentials of Modern Biology.* New York: John Wiley, 1968.
Orians, Gordan H. *The Study of Life: An Introduction to Biology.* Boston: Allyn and Bacon, 1969.
Ostrom, John. *Better Paragraphs.* San Francisco: Chandler Publishing, 1968.
Packard, Vance. *Hidden Persuaders.* New York: Pocket Cardinal, 1968.
Peterson, Theodore and Jensen, Jay W. *The Mass Media and Modern Society.* New York: Holt, Rinehart & Winston, 1965.
Platt, Robert B. and Reid, George K. *Bioscience.* New York: Reinholt, 1967.
Poppy, William J. and Wilson, Leland L. *Exploring the Physical Sciences.* Englewood Cliffs, New Jersey: Prentice-Hall, 1965.
Rose, Arnold M. *Sociology: The Study of Human Relations.* New York: Alfred A. Knopf, 1967.
Rose, Barbara. *American Art Since 1900.* New York: Praeger, 1967.
Sartain, Aaron Q., et al. *Psychology: Understanding Human Behavior.* New York: McGraw-Hill, 1967.
Science Research Associates, Inc. *Principles of Business Data Processing.* Chicago: Science Research Associates, 1968.
Sedwick, John. *Discovering Modern Art.* New York: Random House, 1966.
Sherif, Muzafer. *The Psychology of Social Norms.* New York: Harper & Row, 1965.
Silberman, Charles E. *Crisis in Black and White.* New York: Random House, 1964.
Simmons, Jerry. *Deviants.* Berkley, Calif.: Glendessary, 1969.
Simonson, Harold. *Trio: A Book of Stories, Plays and Poems,* 3rd ed. New York: Harper & Row, 1970.
Simpson, George and Beck, William S. *Life: An Introduction to Biology.* New York: Harcourt, Brace & World, 1969.
Sipple. *Computer Dictionary and Handbook.* Indiana: Howard Sams, 1967.
Skinner, B. F. *Walden Two.* New York: Macmillan, 1969.
Steinberg, Charles, ed. *Mass Media and Communication.*

New York: Hastings House, 1966.
Sutton, Maurice L., Sutton, Larry M. and Puckett, W. Ronald. *A Simple Rhetoric.* Boston: Holbrook Press, 1969.
Sykes, Gresham M. *Crime and Society.* New York: Random House, 1965.
Tucker, Nicholas. *Understanding the Mass Media.* Cambridge: Cambridge University Press, 1967.
Turabian, Kate. *Student's Guide for Writing College Papers.* Chicago: University of Chicago Press, 1964.
Ulrich, Homer. *Music: A Design for Listening,* 3rd ed. Chicago: Harcourt, Brace & World, 1970.
Volpe, E. Peter. *Understanding Evolution.* Dubuque, Iowa: William C. Brown, 1970.
Walter, Don. *Men and Music in Western Culture.* New York: Appleton-Century-Crofts, 1969.
Warriner, John E. and Griffith, Francis. *English Grammar and Composition.* New York: Harcourt, Brace & World, 1965.
Weaver, Gary R. and Weaver, James H. *The University and Revolution.* New Jersey: Prentice-Hall, 1969.
Weisz, Paul B. *Elements of Biology.* New York: McGraw-Hill, 1969.
Whyte, William F. *Street Corner Society.* Chicago: University of Chicago Press, 1965.
Wilson, Everett K. *Sociology: Rules, Roles, and Relationships.* Illinois: Dorsey Press, 1971.
Winter, Stephen S. *The Physical Sciences: An Introduction.* New York: Harper & Row, 1967.
Wistar, Richard. *Man and His Physical Universe.* New York: John Wiley, 1966.
Wrench, David F. *Psychology: A Social Approach.* New York: McGraw-Hill, 1969.
Wright, D. S., et al. *Introducing Psychology: An Experimental Approach.* Baltimore: Penguin Books, 1970.

APPENDIX A

Career Ladders From Selected Sources

Suggested Occupational-Centered Library Technical Assistant Program[a]

A Suggested Career Ladder and Related Training

Job	1st Semester Course	Units	2nd Semester Course	Units	3rd Semester Course	Units	4th Semester Course	Units
Library Page	Introduction to Library Services	3						
Clerk I	Technical Processes	3						
Clerk II			Public Services	3			General Education	15-25
Senior Clerk					Audio-visual	3		
Library Technical Assistant							*Related Courses	15-25
							Work Experience Education	3-6
							Total	60
							Plus Associate of Arts Degree	

*Related Courses: Communications, Human Relations, Advanced Literature, Introduction to Data Processing, Office Procedures and Skills.

Optional Courses: Advanced Audiovisual, Graphics, Children's Library Services, Reference Materials, Foreign Language, Cataloging Techniques, Special Libraries.

[a]Office of the Chancellor, California Community Colleges, *The Library Technical Assistant Program: Guidelines and Course Content for Community College Programs*, California Community Colleges, Sacramento, California, p. 14.

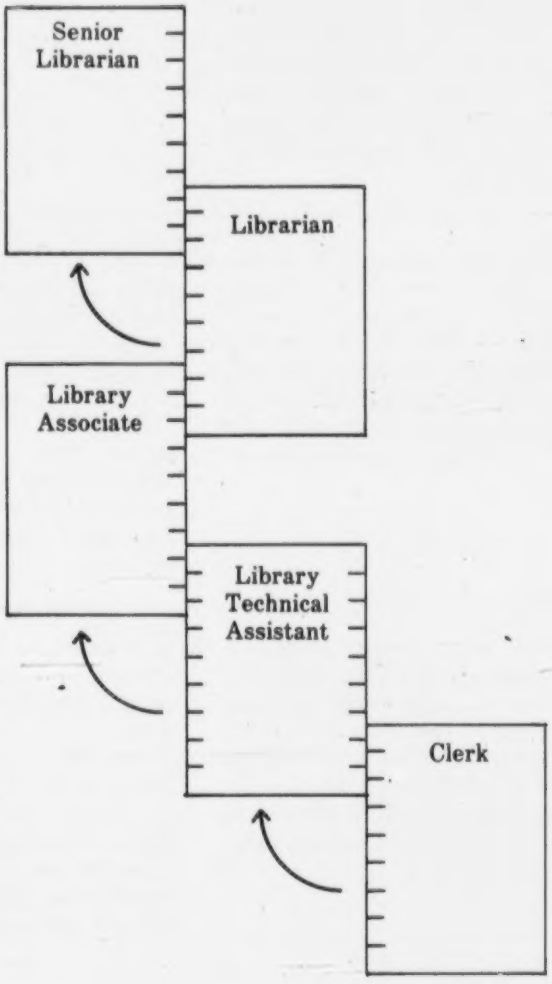
Library Aide Series[b]

POSITION	NATURE OF POSITION	REQUIREMENTS
Library Aide GS-1	Under close supervision, simple routine tasks requiring repetitive application of a few specific instructions. Full performance expected after a few days training and on-the-job-practice.	No previous experience required.
Library Aide GS-2	Under close supervision, follows instructions for performing accurately a variety of library duties of limited complexity. Such duties are simple and repetitive.	No previous experience required, but limited training in, or acquaintance with, library services and procedures is required.
Library Aide GS-3	Under supervision, performs tasks, clerical or manual, of limited complexity involving use of a working knowledge and understanding of the library's services, practices and procedures related to the specific function or activity involved. Works according to established procedures. Some discretion or choice in application of guidelines to a situation at hand may be exercised.	Previous library experience desirable, but not required. Working knowledge and understanding of library's services, practices and procedures related to specific functions or activities which may be gained through instruction on the job. Tact, courtesy, poise, alertness and good judgment required for contact work.
Library Technician GS-4	Under supervision of a librarian or supervisory librarian technician, performs a variety of detailed, nonroutine, or more complex or nonprofessional duties following prescribed or standardized methods or instructions, including a variety of steps or operations, with various alternative courses of action where choices must be made and judgment exercised. Applies library policies, rules and instructions.	Working knowledge of library rules and procedures. May include some knowledge of cataloging practices, bibliographic entries, basic reference sources, acquisition sources and familiarity with library terminology. Working knowledge of one or two foreign languages may be required.

	NATURE OF POSITION	REQUIREMENTS
Library Technician GS-5	Under supervision of a librarian or supervisory library technician, performs tasks which involve use of significant specialized knowledge of (a) the particular library's functions, services, practices and procedures; (b) the terminology content and classification schemes of the library's collection or a specialized collection; or, (c) both. Performs technical or quasi-professional library operations of limited scope or difficulty in one or more library functions. Must apply considerable judgment in application of operating guides.	In addition to the requirements for GS-4, are considerable knowledge of the library's organization, services facilities and classification system and procedures.
Library Technician GS-6	Under general technical supervision of a librarian or supervisory library technician, performs work in one or more of the functional areas of librarianship (such as acquisition, cataloging and reference) to provide technical support and relieve the professional librarian for higher level and more demanding responsibilities.	In addition to requirements for GS-4 and GS-5, are knowledge of a specialized technical or quasi-professional area of library work and skill and understanding of established library techniques and methods and the use of standard library tools within the library in which employed. Ability to speak for the library when serving as the person in charge. Intensive knowledge of library's holdings. Good understanding of searching techniques.
Library Technician GS-7	Under general technical supervision of a librarian who is located either within the local library or at a higher organizational level, works on the basis of a general assignment of responsibilities and follows through the full continuity of the job. Involves substantial specialized knowledge of the library's functions, services, practices and procedures.	In addition to requirements for lower levels of librarian-technician, possesses a store knowledge related to the functions, services, practices and procedures of the library or special type of library in which employed. (Note: The GS-7 librarian, on the other hand, possesses a professional knowledge of the fundamentals of library science, and of the principles, theories and techniques which are applicable to any type of library.)

[b]U.SA. Civil Service Commission, GS 1411 Series; *A Summary of Position Classification Standards*, June, 1966.

Relationship of the Library/Media Technical Assistant to other Library Personnel[c]



[c]American Library Association, L.A.D.–L.E.D. Interdivisional Committee on Training Programs for Supportive Library Staff, *Criteria for Programs to Prepare Library Technical Assistants*, rev. report, June, 1971.

Library/Media

Career Lattice[d]

	Pay Range/ Hour Basis		Pay Range/ Hour Basis
Library/Media Assistant I	Unclassified 2.01 – 2.25	Library/Media Technician II	12 2.89 – 3.80
Library/Media Assistant II	05 2.17 – 2.55	Library/Media Technician III	14 3.13 – 4.15
Library/Media Technician I	08 2.45 – 3.24	Library/Media Specialist	Unclassified 4.85+

Entry-Level Requirements

Library/Media Assistant I:

High school graduate or G.E.D., enrolled in the Library Technical Assistant program. No experience.

Library/Media Assistant II:

Successful completion of one year in the Library Technical Assistant program and continuing satisfactory work performance and development during the previous year.

Library/Media Technician I:

Associate degree in Library Technical Assistant program or at least a third-year student in the College of Education majoring in library education with two (2) years of experience in library/media work.

Library/Media Technician II:

B. Ed. in library education and one (1) year of experience in library/media work; or associate in library technical assistant program with a minimum of two (2) years full-time experience in library/media work following the awarding of the degree; or, equivalent in a relevant special field.

Library/Media Technician III:

B. Ed. in library education and an equivalent to three (3) years full-time experience in library/media work; or associate in library technical assistant and five (5) years experience in library/media work of which the last two (2) years must have been at the Technician II level; or, equivalent in a special relevant field.

Librarian/Media Specialist:

Master's degree in library science or media education, and two (2) years of library media work experience.

[d]Gerald J. Moffitt, *New Careers Project Lattice*, The University of Toledo, Toledo, Ohio, 1970.

APPENDIX B

Pre-Technical Prerequisite Skill Curriculum

There are many students entering the nation's community colleges who lack basic skills (i.e. English, reading, mathematics) without which their chances of success in their chosen technical fields are seriously impaired. For those students who lack a solid foundation in one or more of the skill subjects, the following courses are suggested to provide the student with the means to achieve adequate entering behavior to succeed in the program. After deficiencies have been identified through testing (See Appendix C for a listing of national skill tests), the student should be counseled to take appropriate pre-technical courses before beginning the technical curriculum. In some instances, the deficiency may be limited to one or two skill areas. Under these circumstances, the student may be able to take the necessary skill courses concurrent with the first semester of the technical curriculum or in the summer preceding his full-time academic program. If there are pronounced deficiencies in more than one or two areas, however, the student may have to take an additional semester of work before he is able to pursue the technical curriculum. The following pre-technical prerequisite skill curriculum is intended as an example of a one-semester program which might be provided for those students with inadequate preparation for entering the formal technical program.

Pre-Technical Prerequisite Skill Curriculum

	Hours			
Course	Class	Laboratory	Outside Study	Total
Effective Reading	1	6	2	9
Basic Communication Skills	3	0	6	9
Basic Mathematics	3	0	6	9
Development of Study Skills	3	0	6	9
Typing	1	6	2	9
Totals	11	12	22	45

Brief Description of Courses

Effective Reading

This course is designed to enable the student to increase both his rate of reading and his comprehension.

Basic Communication Skills

The basic structure and design of the English language; covering sentence structure, mechanics and current patterns of word usage.

Basic Mathematics

A basic refresher course in essential and applied mathematics. A contemporary approach to new understandings of mathematics with an emphasis on the computational aspects of elementary business applications.

Development of Study Skills

This course is designed to assist students in the development of necessary study skills. This includes planning of time, utilization of resource materials and the library, organization of ideas, note-taking, outlining, comprehensive reading and listening skills, following directions, and using basic reference materials.

Typing

The objective of this course is the development of fundamental typing techniques and the touch system of typing. Course coverage includes building speed and accuracy, tabulation, and the typing of various types of forms, letters and manuscripts.

APPENDIX C
National Skills Tests

It is a major responsibility of the teaching institution to provide students with every opportunity for success in their chosen field. Many students come to educational institutions inadequately prepared and lacking skills necessary for the successful completion of technical programs. It is essential that the institution test students in order to identify educational weaknesses and counsel students into pretechnical courses in particular skills areas where they will be given the instruction necessary to improve their skills and be successful.

The inclusion of this appendix of National Skills Tests was intended as a service to those institutions which, for any reason, do not have a counseling and testing department. The list is neither inclusive, nor exclusive, but represents a fairly extensive sampling of National Skills Tests in the areas of English, mathematics, reading, study skills and general aptitude. Also included in this appendix are typing skills tests, for although typing is not included in the curriculum, it is strongly recommended that students have a high level of competency in this clerical skill. The absence of this skill could prove to be a handicap to the student in completing the technical program and a serious detriment to his employability.

There has been no attempt to recommend any particular test or series of tests. However, professional reviews of all of these tests can be obtained in one of the ten consecutive publications of *The Mental Measurements Yearbook*, Oscar Krisen Buros, editor; Gryphon Press, Highland Park, N.J. *Tests in Print*, Oscar Krisen Buros, editor; Gryphon Press, Highland Park, N.J. provides a comprehensive index to all of the tests included in this appendix and indicates which volumes of *The Mental Measurements Yearbook* contain professional reviews of each specific test.

Multi-Aptitude Batteries

APTITUDE TESTS FOR OCCUPATIONS. Grades 9-13 and adults; 1951; 6 tests, Wesley S. Roeder and Herbert B. Graham; California Test Bureau.
- a) Personal-Social Aptitude
- b) Mechanical Aptitude
- d) General Sales Aptitude
- d) Clerical Routine Aptitude
- e) Computational Aptitude
- f) Scientific Aptitude

DIFFERENTIAL APTITUDE TESTS. Grades 8-12 and adults; 1947-59; 7 booklets, 9 scores: scholastic aptitude and 8 scores listed below; George K. Bennett, Harold G. Seashore and Alexander G. Wesman; Psychological Corporation.
- a) Verbal Reasoning
- b) Numerical Ability
- c) Abstract Reasoning
- d) Space Relations
- e) Mechanical Reasoning
- f) Clerical Speed and Accuracy
- g) Language Usage. 2 scores: spelling, sentences.

FLANAGAN APTITUDE CLASSIFICATION TESTS. Grades 9-12 and adults; 1941-61; John C. Flanagan; Science Research Associates, Inc.

GENERAL APTITUDE TEST BATTERY. Grades 9-12 and adults; 1946-59; 12 tests, 9 scores: intelligence, verbal, numerical, spatial, form perception, clerical perception, motor coordination, finger desterity; program administered through State Employment Service offices; tests available to nonprofit institutions for counseling purposes; United States Employment Service.

THE GUILFORD-ZIMMERMAN APTITUDE SURVEY. Grades 9-16 and adults; 1947-50; 7 tests; J. P. Guilford and Wayne S. Zimmerman; Sheridan Supply Co.
- a) Part I, Verbal Comprehension
- b) Part II, General Reasoning
- c) Part III, Numerical Operations
- d) Part IV, Perceptual Speed
- e) Part V, Spatial Orientation
- f) Part VI, Spatial Visualization
- g) Part VII, Mechanical Knowledge

YALE EDUCATIONAL APTITUDE TEST BATTERY. Grades 9-16; 1946-53; 7 tests in 3 booklets: verbal comprehension, artificial language, verbal reasoning, quantitative reasoning, mathematical aptitude, spatial relations, mechanical ingenuity; Albert B. Crawford and Paul S. Burnham; distributed by Educational Records Bureau.

English

ANALYTICAL SURVEY TEST IN ENGLISH FUNDAMENTALS. Grades 9-13; 1932-57; formerly called DIAGNOSTIC SURVEY TEST IN ENGLISH FUNDAMENTALS; J. Helen Campbell and Walter Scribner Guiler; C. A. Gregory Co.

BARRETT-RYAN-SCHRAMMEL ENGLISH TEST, New Edition. Grades 9-13; 1938-54; 6 scores: grammar, sentence, punctuation, vocabulary, pronunciation, total; E. R. Barrett, Teresa M. Ryan and H. E. Schrammel; Harcourt, Brace & World, Inc.

CALIFORNIA LANGUAGE TEST, 1957 Edition. Grades 9-14; 1933-59; subtest of CALIFORNIA ACHIEVEMENT TESTS, 1957 Edition; 4 scores; mechanics of English, spelling, total, handwriting; Ernest W. Tiegs and Willis W. Clark; California Test Bureau.

COLLEGE ENGLISH TEST: NATIONAL ACHIEVEMENT TESTS. Grades 12-13; 1937-43; 7 scores: Punctuation, capitalization, language usage, sentence structure, modifiers, miscellaneous principles, total; A. C. Jordan; Acorn Publishing Co.

COLLEGE ENTRANCE EXAMINATION BOARD ADVANCED PLACEMENT EXAMINATION: LITERATURE AND ENGLISH COMPOSITION. Candidates desiring credit for college level courses or admission to advanced courses; 1954-61; program administered for the College Entrance Examination Board by Education Testing Service.

COLLEGE PLACEMENT TEST IN ENGLISH. College; 1941-43; 8 scores: grammar, punctuation, sentence structure, reading syntax, vocabulary, theme, total; Hector H. Lee; Turner E. Smith & Co.

COOPERATIVE ENGLISH TESTS, 1960 Revision. Grades 13-14; 1940-60; revision of COOPERATIVE ENGLISH TEST: LOWER AND HIGHER LEVELS; 6 scores: vocabulary, level of comprehension, speed of comprehension, reading total, English expression, total; subtests in reading and English available as separates; Clarence Derrick, David P. Harris and Biron Walker; Cooperative Test Division.

CROSS ENGLISH TEST. Grades 9-13; 1923-26; 9 scores: spelling; pronunciation, recognizing sentences, punctuation, verb forms, pronoun forms, idiomatic expressions, miscellaneous faulty expression, total; E. A. Cross; Harcourt, Brace & World, Inc.

ENGLISH EXPRESSION: COOPERATIVE ENGLISH TESTS, 1960 Revision. Grades 13-14; 1940-60; revision of MECHANICS OF EXPRESSION: COOPERATIVE ENGLISH TEST: LOWER AND HIGHER LEVELS, TEST A and EFFECTIVENESS OF EXPRESSION: COOPERATIVE ENGLISH TEST: LOWER AND HIGHER LEVELS, TESTS B1 AND B2; Geraldine Spaulding and others; revision by Clarence Derrick, David P. Harris, and Biron Walker; Cooperative Test Division.

GREENE-STAPP LANGUAGE ABILITIES TEST. Grades 9-13; 1952-54; 5 scores: capitalization, spelling, sentence structure, punctuation, usage; Harry A. Greene and Helen I. Stapp; Harcourt, Brace & World, Inc.

THE IOWA TESTS OF EDUCATIONAL DEVELOPMENT: TEST 3, CORRECTNESS AND APPROPRIATENESS OF EXPRESSION. Grades 9-13; 1942-59; E. F. Lindquist and others; Science Research Associates, Inc.

THE NEW PURDUE PLACEMENT TEST IN ENGLISH. Grades 11-16; 1931-55; 8 scores: punctuation, grammar, sentence structure, reading (study), reading (pleasure), vocabulary, spelling, total; G. S. Wykoff, J. H. McKee and H. H. Remmers; Houghton Mifflin Co.

RINSLAND-BECK NATURAL TEST OF ENGLISH USAGE. Grades 9-13; 1934-58; 4 scores: Test I— mechanics, Test II— grammar, Test II— rhetoric, total; Henry D. Rinsland, Betty Shrock Beck and Roland L. Beck; Public School Publishing Co.

TEST OF ENGLISH USAGE. High school and college; 1950, 4 scores: mechanics of writing, use of words, sentences and paragraphs, total; Henry D. Rinsland, Raymond W. Pence, Betty S. Beck and Roland L. Beck; California Test Bureau.

TESTS OF LANGUAGE USAGE: ACTIVE VOCABULARY AND EXPRESSION: COOPERATIVE INTER-AMERICAN TESTS. Grades 8-13; 1950; English and Spanish editions; 3 scores: active vocabulary, expression, total; Committee on Modern Languages of the American Council on Education; (Guidance Testing Associates).

Composition

COLLEGE ENTRANCE EXAMINATION BOARD ACHIEVEMENT TEST IN ENGLISH COMPOSITION. Candidates for college entrance; 1943-61 program administered for the College Entrance Examination Board by Educational Testing Service.

COLLEGE ENTRANCE EXAMINATION BOARD WRITING SAMPLE. Candidates for college entrance; 1960-61; program administered for the College Entrance Examination Board by Educational Testing Service.

Reading

AMERICAN SCHOOL READING TESTS. Grades 10-13; 1955; 3 scores: vocabulary, reading rate, comprehension; Willis E. Pratt and Stanley W. Lore; Public School Publishing Co.

COMMERCE READING COMPREHENSION TEST. Grades 12-16 and adults; 1956-58; Irma T. Halfter and Raymond J. McCall; Department of Psychological Testing, DePaul University.

DIAGNOSTIC READING TESTS. Various grades kgn-13; 1947-63; IBM (except for section 4, part I) for grades 2-13; 3 levels; interpretation booklet; revised norms booklet; Committee on Diagnostic Reading Tests, Inc.

(1) Survey Section. 1947-63; 5 scores: rate of reading, comprehension check, vocabulary, total comprehension, total.

(2) Section I: Vocabulary (Revised). 1947-63; 5 scores; English, mathematics, science, social studies, total.

(3) Section 2: Comprehension: silent and auditory. 1947-63.

(4) Section 3: Rates of Reading: Part I, general. 1947-63; 4 scores: normal rate of reading, comprehension at normal rate, maximum rate of reading, comprehension at maximum rate.

(5) Section 4: Word Attack. 1947-63; 2 parts
   (a) Part I, Oral. 1948-58; individual; for grades 1-13.
   (b) Part 2, silent, grades 4-13; 1947-63; 3 scores: identification of sounds, syllabication, total.

IOWA SILENT READING TESTS: New Edition. Grades 4-8, 9-14; 1927-56; H. A. Greene, A. N. Jorgensen and V. H. Kelley; (Harcourt, Brace and World, Inc.) Advanced Test. Grades 9-14; 1927-43; 10 scores: rate, comprehension, directed reading, poetry comprehension, word meaning, sentence meaning, paragraph comprehension, use of index, selection of key words, total.

KELLEY-GREENE READING COMPREHENSION TEST. Grades 9-13; 1953-55; 5 scores: paragraph comprehension, directed reading, retention of details, reading rate, total; Victor H. Kelley and Harry A. Greene; Harcourt, Brace & World, Inc.

MINNESOTA READING EXAMINATION FOR COLLEGE STUDENTS. Grades 9-16; 1930-35; 2 scores: vocabulary, paragraph reading; Melvin E. Haggerty and Alvin C. Eurich; University of Minnesota Press.

THE NELSON-DENNY READING TEST: Vocabulary Comprehension Rate. (Revised edition) Grades 9-16; 1929-60; 4 scores: vocabulary, comprehension, total and rate; M. J. Nelson and E. C. Denny; James I. Brown; Houghton Mifflin Co.

SCHRAMMEL-GRAY HIGH SCHOOL AND COLLEGE READING TEST. Grades 7-16; 1940-42; 3 scores: gross-comprehension, comprehension-efficiency, rate; H. E. Schrammel and W. H. Gray; Public School Publishing Co.

MINNESOTA SPEED OF READING TEST FOR COLLEGE STUDENTS. Grades 12-16; 1936; Alvin C. Eurich; University of Minnesota Press.

Study Skills

BROWN-HOLTZMAN SURVEY OF STUDY HABITS AND ATTITUDES. High school and college; 1953-56; William F. Brown and Wayne H. Holtzman; Psychological Corporation.

CALIFORNIA STUDY METHODS SURVEY. Grades 7-13; 1958, 5 scores: attitudes toward school, mechanics of study, planning and system, total, verification; Harold D. Carter; California Test Bureau.

EVALUATION APTITUDE TEST. Candidates for colleges and graduate school entrance; 1951-52; 5 scores: neutral syllogisms, emotionally toned syllogisms, total, emotional bias, indecision; DeWitt E. Sell; Psychometric Affiliates.

THE IOWA TESTS OF EDUCATIONAL DEVELOPMENT: TEST 9, USE OF SOURCES OF INFORMATION. Grades 9-13; 1942-59; E. F. Lindquest and others; Science Research Associates, Inc.

A LIBRARY ORIENTATION TEST FOR COLLEGE FRESHMEN, 1955 Edition. Grade 13, 1950-61; Ethel M. Feagley, Dorothy W. Curtiss, Mary V. Gaver and Esther Greene; Bureau of Publications.

LOGICAL REASONING. Grades 9-16 and adults; 1955; Alfred F. Hertzka and J. P. Guilford; Sheridan Supply Co.

PICTOGRAPHIC SELF RATING SCALE. High school and college; 1955-57; attitude toward classroom and study activities; Einar R. Ryden; Acorn Publishing Co.

SPITZER STUDY SKILLS TEST. Grades 9-13; 1954-55; 6 scores: dictionary, index, graphs-tables-maps, sources of information, total, note taking; Herbert F. Spitzer; Harcourt, Brace & World, Inc.

STUDY HABITS INVENTORY, REVISED EDITION. Grades 12-16; 1934-41; Gilbert Wrenn; distributed by Consulting Psychologists Press, Inc.

STUDY PERFORMANCE TEST. High school and college; 1934-43; Herbert A. Toops, Grace Shover and others; Ohio College Association.

THE STUDY SKILLS COUNSELING EVALUATION. High school and college; 1962; George Demos; Western Psychological Services.

WATSON-GLASER CRITICAL THINKING APPRAISAL. Grades 9-16 and adults; 1942-56; 6 scores: inference, assumptions, deduction, interpretation, arguments, total; Goodwin Watson and Edward Maynard Glaser; Harcourt, Brace & World, Inc.

Mathematics

COLLEGE ENTRANCE EXAMINATION BOARD ACHIEVEMENT TEST IN INTERMEDIATE MATHEMATICS. Candidates for college entrance; 1936-61; program administered for the College Entrance Examination Board by Educational Testing Service.

COOPERATIVE GENERAL ACHIEVEMENT TESTS: TEST 3, MATHEMATICS. Grade 12 and college entrants; 1937-56; Paul J. Burke and Bernice Orshansky; Cooperative Test Division.

THE IOWA TESTS OF EDUCATIONAL DEVELOPMENT: TEST 4, ABILITY TO DO QUANTITATIVE THINKING. Grades 9-13; 1942-59; E. F. Lindquist and others; Science Research Associates, Inc.

THE PURDUE MATHEMATICS TRAINING TEST: ARITHMETIC AND ALGEBRA. Grade 13; 1958-60; c1951-60; M. W. Keller, H. F. S. Jonah, H. H. Remmers and P. C. Baker; University Book Store.

SNADER GENERAL MATHEMATICS TEST. Grades 9-13; 1951-54; Daniel W. Snader; Harcourt, Brace & World, Inc.

Typing

INTERNATIONAL TYPEWRITING TESTS. High school and business college; 1950; W. C. Maxwell; Educational Test Bureau.

SRA TYPING SKILLS. Grades 9-12 and adults; 1947; 2 scores: speed, accuracy; Marion W. Richardson and Ruth A. Pedersen; Science Research Associates, Inc.

SRA TYPING ADAPTABILITY TEST. High school and adults; 1954-56; 3 scores: time, error, total; Mary Tydlaska and Clem White; Science Research Associates, Inc.

TEST OF TYPING SPEED. Applicants for clerical positions; 1958-63; 2 scores: net speed, accuracy; Richardson, Bellows, Henry & Co., Inc.

TYPEWRITING TEST: NATIONAL BUSINESS ENTRANCE TESTS. Grades 12-16 and adults; 1941-60; Joint Committee on Tests of the United Business Education Association and the National Office Management Association; United Business Education Association.

APPENDIX D
Journals and Periodicals for the Technical Curriculum

It is essential that the library contain the minimum number of volumes recommended by the current *American Library Association Standards for Junior College Libraries* before any consideration is given to initiating a curriculum for the library technical assistant. A two-year institution of up to 1,000 students (F.T.E.) cannot discharge its mission without a carefully selected book collection of a minimum of 20,000 volumes, exclusive of duplicates and textbooks. Junior colleges with broad curriculum offerings may need a collection of two or three times that basic figure.

In addition to the basic book collection, the library should have two or more copies of all library tools such as classification schedules and subject heading lists, book ordering and verifying tools, and all general and specialized library tools used in library work. A collection of these tools should be easily accessible to students enrolled in the Library Technical Assistant curriculum.

Audiovisual materials should be available for the use of students and faculty. The collection should meet the minimum *Quantitative Standards for Audiovisual Personnel, Equipment and Materials* adopted by the Department of Audiovisual Instruction of the National Education Association. These standards recommend a minimum collection of 500 film titles, 2,000 filmstrip titles and 1,000 tape and disc recordings, including laboratory materials. Periodicals and newspapers constitute an invaluable source of current reference material on many subjects. The library collection should contain 200 to 300 periodical titles and all of the major periodical indexes. At least a third of the periodicals should have bound volumes, or microfilm, extending back ten years. The importance of this portion of the library content cannot be overemphasized, for it is essential that both instructors and students make frequent and systematic use of relevant periodical literature.

The following is a list of technical journals, periodicals and trade magazines which should be available in the library. This list is intended to suggest appropriate publications which would provide useful support for the Library Technical Assistant curriculum.

AV Communication Review, National Education Association, Dept. of Audiovisual Instruction, 1201 16th St., N.W., Washington, D.C. 20036

American Library Association Bulletin, American Library Association, 50 E. Huron St., Chicago, Ill. 60611

American School and University, Buttenheim Publishing Corp., 757 Third Ave., New York, N.Y. 10017

Association of Educational Data Systems Bulletin, State Dept. of Education, Tallahassee, Fla.

Audio, Jay Butler, Publisher, 134 N. 13th St., Philadelphia, Pa. 19107

Audio-Visual Communication, United Business Publications, Inc., 200 Madison Ave., New York, N.Y. (annual)

Audiovisual Instruction, Association for Educational and Communications Technology, 1201 16th St., N.W., Washington, D.C. 20036

Camera, C. J. Bucker, Ltd., Publishers, Lucerne, Switzerland

Choice, American Library Association, Association of College and Research Libraries, 50 E. Huron St., Chicago, Ill. 60611

College and Research Libraries, American Library Association, Association of College and Research Libraries, 50 E. Huron St., Chicago, Ill. 60611

Communication Arts Magazine, Coyne and Blanchard Inc., 200 California Ave., Box 10300, Palo Alto, Calif. 94303

Data Processing, IPC Electrical-Electronic Press, Ltd., Dorset House, Stamford St., London, S.E. 1, England

ERIC News, Educational Research Information Center, One Dupont Circle, Washington, D.C. 20036

ETV Newsletter, ETV Newsletter Co., 140 Main St., Ridgefield, Conn. 06877

Educational Media, Educational Media, Inc., 1015 Florence St., Fort Worth, Tex. 76102

Educational Screen and Audiovisual Guide, Trade Periodicals Inc., 434 S. Wabash, Chicago, Ill. 60605

Educational Technology, Educational Technology Publications, Inc., 456 Sylvan Ave., Englewood, N.J. 07632 07632

Educational Television International, Pergamon Press, Inc., Journals Dept., Maxwell House, Fairview Park, Elmsford, N.Y. 10532

Elementary School Journal, University of Chicago Press, 5835 Kimbark Ave., Chicago, Ill. 60637

Film Library Quarterly, Film Library Information Council, FLIC, 101 W. Putnam Ave., Greenwich, Conn. 06830

Film News, Rohama Lee, 250 W. 57th St., New York, N.Y. 10019

Grade Teacher, Professional Magazines, Inc., Darien, Conn. 06820

Harper's Magazine, Harper's Magazine, Inc., Two Park Ave., New York, N.Y. 10016

Horn Book Magazine, Horn Book, Inc., 585 Boylston St., Boston, Mass. 02116

Instructor, Instructor Publications, Inc., 7 Bank St., Dansville, N.Y. 14437

Journal of Library Automation, American Library Association, Information Science and Automation Division, 50 E. Huron St., Chicago, Ill. 60611

Law Library Journal, American Association of Law Libraries, 53 Jackson Blvd., Suite 1201, Chicago, Ill. 60604

Library Journal, R. R. Bowker Co., 1180 Ave. of the Americas, New York, N.Y. 10036

Library of Congress Information Bulletin, Library of Congress, Information and Publications Office, Washington, D.C. 20540

Library Quarterly, University of Chicago Press, 5750 Ellis Ave., Chicago, Ill. 60637

Library Resources and Technical Services, American Library Association, Resources and Technical Services Division, 50 E. Huron St., Chicago, Ill. 60611

Library Trends, Subscription Department, University of Illinois Press, Urbana, Ill. 61801

Media and Methods, North American Publishing Co., 134 N. 13th St., Philadelphia, Pa. 19107

Medical Library Association Bulletin, The Association, c/o Mrs. Helen Brown Schmidt, 919 North Michigan Ave., Chicago, Ill. 60611

Modern Photography-Herbert Keppler, 165 W. 46th St., New York, N.Y. 10046

Music Library Association Notes, William J. Wichlein, School of Music, University of Michigan, Ann Arbor, Mich. 48105

NEA Journal, National Education Association, 1201 16th St., N.W., Washington, D.C.

NEA Research Bulletin, National Education Association, Research Division, 1201 16th St., N.W., Washington, D.C. 20036

PMI (Photo Methods for Industry), Gellert Publishing Co., 33 W. 60th St., New York, N.Y. 10023

Phi Delta Kappa, Phi Delta Kappa, Inc., Eighth St. and Union Ave., Bloomington, Ind.

Publishers' Weekly, R. R. Bowker Co., 1180 Ave. of the Americas, New York, N.Y. 10036

Saturday Review, Saturday Review, Inc., 380 Madison Ave., New York, N.Y. 10017

School Libraries, American Library Association, American Association of School Librarians, 50 E. Huron St., Chicago, Ill. 60611

School Library Journal, R. R. Bowker Co., 1180 Ave. of the Americas, New York, N.Y. 10036

School Product News, Industrial Publishing Co., 614 Superior Ave., West, Cleveland, Ohio 44113

Special Libraries, Special Libraries Association, 235 Park Ave., South, New York, N.Y. 10003

Top of the News, American Library Association, Children's Services Division and Youth Adult Services Division, 50 E. Huron St., Chicago, Ill. 60611

TV and Communications, Communications Publishing Corp., 207 N.E. 38th St., Oklahoma City, Okla. 73105

TV Guide, Triangle Publications, Inc., Box 400, Radnor, Pa.

Visual Communications Instructor, Syndicate Magazines, Inc., 25 W. 45th St., New York, N.Y. (monthly)

Wilson Library Bulletin, H. W. Wilson Co., 950 University Ave., Bronx, N.Y. 10452

APPENDIX E
Societies and Organizations Pertinent to the Education of Library Technical Assistants

There are several professional and technical societies concerned either directly or indirectly, with the education of library technical assistants. Some of these associations are employer oriented (i.e. Public Library Association, Special Libraries Association) and are interested in the education of support personnel from an employer viewpoint. Other associations are curriculum oriented (i.e. ALA, Library Education Div.) and concerned with course content, qualifications of teaching faculty and standards maintained in Library Technical Assistant programs. Still others (i.e. Council on Library Technology) are concerned with the employment, salaries and problems of the technicians themselves.

The selected list which follows is not comprehensive of all organizations concerned with library technology. Inclusion does not imply approval nor does omission imply disapproval of an organization. Many of the organizations listed have state, regional and local chapters. However, no information has been included for other than the national organizations.

Individuals seeking further information about these organizations or their state, regional or local chapters should contact the national headquarters at the address listed. Requests for information should be directed to the executive secretary for prompt reply.

AMERICAN ASSOCIATION OF JUNIOR COLLEGES (AAJC), 1315 16th Street, N.W., Washington, D.C. 20036.

Purpose: To expand the development of junior colleges.
Publications: *Junior College Journal*, eight times a year.

AMERICAN ASSOCIATION OF LAW LIBRARIES (AALL), 53 W. Jackson Blvd., Chicago, Ill. 60604.

Purpose: To foster cooperation among librarians to increase the usefulness and efficiency of law libraries.
Publications: *Index to Legal Periodicals*, eleven times a year; *Current Publications*, nine times a year; *Law Library Journal*, quarterly; *Index to Foreign Legal Periodicals*, quarterly; *Directory of Law Libraries*, biennial; *AALL Publication Series*; *Biographical Directory of Law Librarians*.

AMERICAN ASSOCIATION OF SCHOOL LIBRARIANS (AASL), 50 E. Huron St., Chicago, Ill. 60611.

Purpose: The improvement and extension of library services for children and young people.
Publications: *School Libraries*, quarterly.

AMERICAN LIBRARY ASSOCIATION (ALA), 50 E. Huron St., Chicago, Ill. 60611.

Purpose: To increase the use and usefulness of books through improving and extending library service.
Publications: *ALA Bulletin*, monthly.

AMERICAN ASSOCIATION OF STATE LIBRARIES (AASL), 50 E. Huron St., Chicago, Ill. 60611.

Purpose: To establish standards of service for all library services performed on a provincial, state or territorial level.
Publications: *President's Newsletter*, irregular.

ASSOCIATION FOR EDUCATIONAL COMMUNICATIONS AND TECHNOLOGY (AECT) (Formerly Department of Audiovisual Instruction of the National Education Association).

Purpose: To improve education through the effective use of audiovisual instructional media and methods.
Publications: *Audiovisual Instruction*, monthly; *AV Communication Review*, quarterly; *ECT* Monthly, and *Newsletter*.

ASSOCIATION OF COLLEGE AND RESEARCH LIBRARIES (ACRL), 50 E. Huron St., Chicago, Ill. 60611.

Purpose: To promote, plan and carry out programs in the interest of academic libraries, independent research libraries and specialized libraries.
Publications: *Books for College Libraries*, monthly; *College and Research Libraries*, bimonthly; *ACRL Monograph Series*, *ACRL Microcard Series*, irregular.

ASSOCIATION OF HOSPITAL AND INSTITUTION LIBRARIES, 50 E. Huron St., Chicago, Ill. 60611.

Purpose: To provide material for patients' recreation.
Publications: None.

PUBLIC LIBRARY ASSOCIATION (PLA), 50 E. Huron St., Chicago, Ill. 60611.

Purpose: To improve and expand public library services to readers of all ages.
Publications: *Just Between Ourselves*, three times a year.

AMERICAN TECHNICAL EDUCATION ASSOCIATION (ATEA), 22 Oakwood Pl., Delmar, N.Y.

Purpose: To expand quality of technical education.
Publication: Newsletter, bi-monthly.

CATHOLIC LIBRARY ASSOCIATION (CLA), 461 W. Lancaster Ave., Haverford, Pa.

Purpose: To aid in writing, publishing and distribution of Catholic literature.
Publications: *Catholic Library World*, nine times a year; *Catholic Periodical Index*, quarterly; *Guide to Catholic Literature*, annually.

COUNCIL ON LIBRARY TECHNOLOGY (COLT), Cuyahoga Community College, Metropolitan Campus, 626 Huron Rd., Cleveland, O., 44115.

Purpose: To provide a channel of communication among the institutions and personnel that have developed Library Technical Assistant programs, standardize curriculum offerings, develop educational standards and conduct research on graduates of the programs.
Publications: *COLT Newsletter*, quarterly; *COLT Membership Directory and Data Book*, annually.

EDUCATIONAL FILM LIBRARY ASSOCIATION (EFLA), 250 W. 57th St., New York, New York 10019.

Purpose: To promote, produce, distribute and utilize 16

mm. films and other a-v materials.

Publications: *EFLA Bulletin*, nine times a year; *Film Review Digest*, nine times a year; *Film List*, nine times a year.

INTERNATIONAL ASSOCIATION OF AGRICULTURAL LIBRARIANS AND DOCUMENTALISTS, c/o Foster E. Mohrhardt, U.S. National Agricultural Library, Washington, D.C.

Purpose: To establish a base for cooperative activities for librarians and documentalists in the agricultural field.

Publications: *World Agricultural Economics and Rural Sociological Abstracts, World Directory of Agricultural Libraries and Documentation Centers*, quarterly; *Bulletin of the IAALD.*

MEDICAL LIBRARY ASSOCIATION (MLA), 919 N. Michigan Ave., Chicago, Ill. 60611.

Purpose: To exchange medical literature among its members and to improve professional qualifications and status of medical librarians.

Publications: *Bulletin of MLA*, quarterly; *Vital Notes*, three times a year; *Directory of MLA*, biennial.

MUSIC LIBRARY ASSOCIATION (MLA), c/o School of Music, University of Michigan, Ann Arbor, Mich. 48105.

Purpose: To promote the establishment, growth and use of music libraries and collections of music musical instruments, musical literature and audiovisual aids.

Publications: *Notes*, quarterly, and *Index Series*, irregular.

NATIONAL EDUCATION ASSOCIATION (NEA), 1201 16th St., N.W., Washington, D.C.

Purpose: To promote American education.

Publications: *NEA Journal*, nine times a year; *Research Bulletin*, quarterly; *Proceedings*, annually.

SPECIAL LIBRARIES ASSOCIATION (SLA), 31 East 10th St., New York, N.Y. 10003.

Purpose: To promote the collection, organization and dissemination of information in specialized fields and to improve the usefulness of special libraries and information services.

Publications: *Special Libraries*, 10 times a year; *Technical Book Review Index*, ten times a year; *Scientific Meetings*, three times a year.

THEATRE LIBRARY ASSOCIATION (TLA), Princeton University Library, Princeton, N.J.

Purpose: To further the interests of gathering, preserving and making available through libraries, museums and private collections any records of theatre in all its forms.

Publications: *Broadside*, irregular, and *Modern Drama*, quarterly.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1973—753-422/515